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THE NEW Outlook FOR THE BLIND

Three Articles on Computer Programming and the Blind
Yehuda Schiff, John DeRuyter, Richard D. Royston,
Norman M. Yoder, Ph.D.

Sex Education of Blind-Born Children
F. van 'T Hooft, M.D., K. Heslinga, Ph.D.

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The Blind in the Computer Age

YEHUDA SCHIFF

Mr. Schiff is director of the department for rehabilitation in the Israeli Ministry of Social Welfare.

The scope of the problems of rehabilitation in Israel should be viewed against two interrelated factors that have shaped Israel's reality during the eighteen years of independence:

1) Mass immigration of people from different cultural, social, and economic backgrounds with the majority of newcomers coming from Asian and African countries.
2) The demands of economic survival that call for integration of the new citizens into the country's productive labor force and into the life of the community.

Both factors generated new social needs: (a) that of an individual who, under the stress of new economic demands and changing social values has to be capable of accepting a new environment so as to continue to function adequately; (b) that of a society whose ideals are to promote a fair, equal standard of living for the whole population. This demands quick and successful adaption of the individual to the economic requirements and the new social pattern of existence.

Israeli blind population's age distribution differs from other countries

Under the Law of Return, implying non-selective immigration, Israel has during the past nineteen years received a great number of blind persons from all over the world, particularly from countries in Asia and Africa. Many of these immigrants have been deficient in education, lacking in regular working habits, and culturally deprived. This multiplied the blind population in Israel twelvefold, two-thirds being aged fifty and lower, which is contrary to what prevails in other countries.

The services for the blind had to concentrate, after their inception in 1958, on those blind persons who had dependent families and on those older people who were capable of benefiting from training programs. However, during the past few years there has been a growing need for training programs for the increasing number of graduates of regular high schools and capable non-graduates.

In Israel, as in other western-oriented states, industry and commerce have made use of increased automation, and this forced training facilities for the blind to look for job activities which the blind could pursue in this new field. The success of nearly 100 blind telephone switchboard operators who are employed throughout Israel made us more confident that a properly trained

This article is adapted from a speech Mr. Schiff gave at the 1966 annual meeting of the National Rehabilitation Association.

blind person with certain technical, logical, and mathematical capabilities could function well in the computer field.

Industrial expansion and manpower shortage made employers more willing to use blind persons

Israel has been, during the past years, in a period of industrial expansion which created a manpower shortage and made employers more willing to use blind persons as workers in industry and commerce. However, there was no precedent in Israel or in other Western countries for employment of blind persons in the field of IBM machine operations or computer programming.

All the above facts led to the idea of a course in IBM machine operation for high school graduates who did not pursue higher studies.

At the outset, we were confronted by severe and unpredictable problems. Before approaching the problems of the blind themselves, we had to find appropriate teachers and instructors who were both specialists in the IBM field and capable of instructing the blind. Since these were not available, we had to persuade regular IBM teachers to cooperate in the project by promising them guidance and assistance from our specialists to overcome obstacles confronted when teaching the blind.

Experimental group formed

An experimental group of eight blind students was formed. The term "class" was not justified since teachers, methods, and curriculum were lacking. The experience with this group were discussed at a meeting attended by the instructors, vocational rehabilitation counselors, specialists in IBM machines, and managers of three IBM installations in Jerusalem. The experiences with the experimental group were presented and it was concluded that a blind person is capable of operating all machines in an IBM installation except the accounting machine, and is also capable of installing the panel wiring for all machines, including the accounting machine.

These preliminary experiments and their results were presented to the Vocational Rehabilitation Administration in the form of an application for a project grant which would assist in opening new occupations for the blind in the rapidly expanding field of automatic data processing and computer programming, not only for the blind of Israel but for those in countries all over the world. The request for a grant to establish a demonstration center for "Research on Rehabilitation of Blind, Partially-sighted and Otherwise Handicapped Persons as Data Processing Machine Operators" was approved by the VRA and is one of nearly 100 projects in many countries abroad which the Vocational Rehabilitation Administration is supporting as a part of its international research program.

Our ministry conducts the IBM Program in cooperation with the office mechanization center of the Ministry of Finance, the IBM Corporation, and the Jewish Institute for the Blind. Through this cooperation we have brought together the skills and resources of representatives from industry, government, and voluntary agencies in developing better training employment opportunities for the blind and otherwise handicapped persons.

Goals of Research Project

☐ The research project had four goals:

1) To compile a manual for teachers and instructors on how to teach blind people theory and practice of operating IBM machines and panel wiring.
2) To train blind persons to perform all operations according to the methods

he has been taught, to do his work efficiently in a minimum time, and to operate the maximum number of machines of different types.

3) To devise special aids and features which will make the blind operator independent in his work.
4) To set up standards and criteria of abilities, education, etc., required of a student in an IBM course.

Since a survey showed that Israeli government and commercial offices were equipped only with conventional IBM machines and that for a relatively long time conventional machines would continue to be used in medium and small-sized concerns, we began by developing training methods suitable for conventional equipment, specifically: card punch 011; printing card punch 026, 024; card verifier 056; card sorter 082, 083; card collator 077, 088; accounting machine 407; reproducing machine 519; interpreter 558; and calculating machine 602.

The trainees were first taught the functions of the IBM machines and the information that could be obtained from them. This part of the course also included training in the wiring of control panels of all the machines. In the second part of the course, they practiced the actual operation of the machines.

Program tailored to needs of visually handicapped

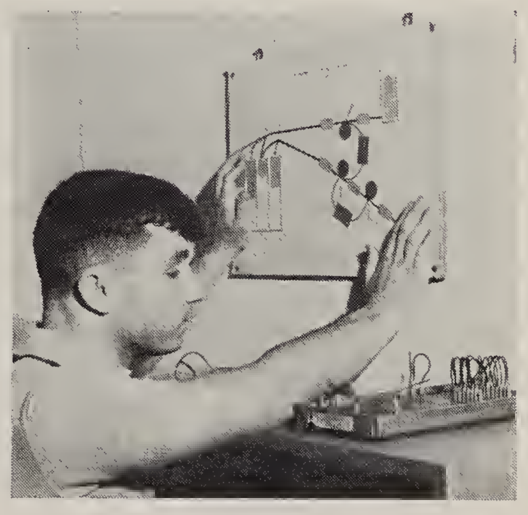
Studies were conducted according to a special program tailored to the needs of the visually handicapped trainees. The lessons were based on manuals published by IBM for sighted people. These manuals were transcribed into braille in order to free the trainee from dependence on instructions from sighted co-workers.

As far as abstract explanations were concerned, the blind did not present special problems, but when explanations were based on drawings or illustrations, difficulties arose. The sketches and drafts were rendered in our training manuals with braille ink through a braille heater, so that the blind trainees could feel the sketches.

Need for special aids and models

It was necessary to prepare special aids to enable the trainees to understand each part and its function. They could touch and finger the machine and in this way learn its dimensions, the various switches which operate it, and the methods of its operation. They could not, however, touch the internal parts and accessories which cause the machine to operate. In short, it was difficult to make clear to the trainees how the machine functions.

Even with the simplest machine which works without control panels (the sorter), it was difficult to explain to the trainee how the cards fall into the various pockets, and how the internal construction of the machine makes this possible. Now, however, the trainee receives a clear picture of the principles and the processes of sorting with the aid of a model made of wood. On it are fixed original chute blades from the IBM sorter with movable keys and hammers which enable the trainee to grasp the action of the magnets. The trainee runs a card through the model, presses one of the keys which move the hammers, and follows the progression of the cards in the machine with his hands. In this manner he learns the action of the magnets and the function of the chute blades in the machines.



To make clear the internal construction of the machines and the various car feed units in them, we designed other models so that the trainee could feel the differences between the various units and their functions. Similarly, tactile models were used to explain how to wire control panels. We also developed three-dimensional models to teach the principle of the IBM computing unit and to make clear the mechanism of the IBM selector.

While explaining the parts of the machines we usually tried to confine ourselves to original IBM parts. For this purpose IBM supplied parts which were no longer in use and these were fitted for training purposes.

Twenty of twenty-four students placed successfully

Twenty-four blind students have now attended and finished three courses. Twenty of these students have been placed successfully in IBM operation and computer programming work with banks; with the municipalities of Haifa, Jerusalem, Tel Aviv, and Nathanya; and with the IBM Corporation, the Ford Company, and other government and private enterprises. The project also included the training of deaf-mutes and otherwise handicapped girls as card punchers. Ten blind trainees participated in the evenings in three different programming courses for the IBM computer 1401 and the NCR computer 315. Five of them did not graduate from our regular courses, while the others who were already employed returned to the project for retraining to be brought up-to-date on changes of equipment in their firms.

Extensive reports submitted to VRA

Four extensive reports on the project were submitted to the Vocational Rehabilitation Administration. The first report includes a detailed description of IBM machines and their functions, the principles on which IBM equipment operates, and a job breakdown of the IBM 083 sorter. The second and third reports review the achievements in the training of blind persons in automatic data processing, validating the conclusion that the blind person can perform productively as an IBM operator. These two reports also describe some special instruments which were constructed to aid the blind in the performance of certain operations for which vision is indispensable and of others where tangible arrangements must replace those arranged for visual operation. They also give a sequence of lessons and exercises which, though not significantly deviating from a syllabus for sighted students, present some adaptions of future trends in automatic data processing, particularly the introduction of a programming course for the IBM 1401 computer. The fourth report refers to the psychosocial aspects of the research and demonstration project. We intended to determine, to the extent that this is possible, the social and personal conditions that guarantee maximum success to the rehabilitation program.

Specific details concerning the programming IBM Computer 1401 are included in report number five which is now being prepared. This report especially deals with the discovery of a technique that enables the computer to print the embossed dots of the braille script. It includes all details about two special programs which have been written by the research team for the computer enabling it to convert ordinary letters and figures to braille symbols, as well as a more complicated program for the conversion of the remarks and corrections noted by the computer while the program is assembled.

The trainees who graduated from the courses in conventional machines and computer programming received certificates given by the training department

of the IBM Corporation. This is significant since the IBM training department does not usually give certificates to those who do not study in their courses. In our case they decided that the level of training was worthy of such a certificate. IBM has cooperated closely and with great interest in the program and has a supervisor in its training department for the project who also acts as consultant when necessary.

Since the use of electronic computers is steadily increasing, manpower requirements for computer programming and operators must also be expected to increase. Therefore, our project has adapted itself to the growing tendencies in development by expanding from the original plan to include the whole field of computer programming.

Retraining and Adapting to a Higher Level of Automatic Data Processing

☐ Most of those trainees who completed the previous courses as operators will shortly face the problem of retraining and adapting to a higher level of automatic data processing. In certain instances this problem has been solved through the combined efforts of our project, the workers, who are the former trainees, and the employers. However, in the future the solution of the problem of retraining as a result of changes in computers should not be left to the unpredictability of the three afore-mentioned factors. It is very possible that as a result of such unpredictability the central factor—the blind worker—might be harmed and his normal work pattern broken.

Retraining creates special problems for the blind

The need for retraining under Israeli conditions is related to the knowledge of the IBM Computer 360. While retraining does not present any special problem for sighted people, this is not so with the blind. With sighted people, the problem is one of personal adjustment to the subject of programming. But with the blind, even should they be personally suited to programming, it is necessary to find a special method of training that will enable them to progress in their work independently of sighted co-workers.

The adaptation of the project to the new trends in development will solve three problems: (1) retraining of the graduates; (2) basic training program for more blind in the field of computer programming; and (3) the opening up of new possibilities of training the visually and otherwise handicapped in the field of computer operation (an occupation that until now has been closed to them).

We were able to establish the training center and equip it completely for research and training purposes, thanks to the understanding and support of VRA. To this understanding and support we owe much of our success. A blind operator, a student in our course, could never have competed with a sighted operator if he had not had the opportunity of getting to know the machines in detail and of working on them without time limit. Nor could our student have reached the high level in theory as well as in the ability to set up control panels if he had not been given the chance to test these theories and abilities on the machines.

The machine installation that was put at the disposal of our project also made it possible for the research team and instructors to find special and didactic solutions. Without this installation we could not have developed these special teaching aids and the auxiliary instruments for operating the machines.

Great difficulties in teaching programming

In contrast to the encouraging experience we have had in training in the field of conventional machines when a complete installation was at our disposal, we have had great difficulties in teaching programming. These difficulties have hindered to a certain extent the development of methods of training and have hampered the pupils, as we were dependent on the "generosity" of owners of computers which were not always at our disposal when needed and which were not available in sufficient number. VRA, realizing these difficulties, provided funds for an IBM Computer 360, which will be widely used in Israel. It was installed in the fall of 1967.

To be prepared for this new venture in our project, one of our instructors studied for six months at the IBM training department in New York, where he learned both the teaching methods of programming and the practical working of the 360 computer.

Graduates of courses are advisors

Meetings with those blind who attended the previous courses have been held to evaluate training methods and new problems which arose in the practical work. We felt that the blind operators and programmers, from their own experience, would be our best advisors in solving problems and guiding us in using teaching methods for the future courses.

Let us now return to the psycho-social aspects of our research. Considering that the blind have never worked in automatic data processing systems and the high level of achievement the graduates must attain, we were compelled to seek systematic standardized means that would enable us to select the most promising candidates. Ability and educational requirements should be higher than those required for sighted candidates in similar courses.

A thorough professional assessment depends on many factors. Evaluation of abilities and aptitudes are among the most important. Therefore, the first six to eight weeks of the program are considered as a period of evaluation in which the trainee adjusts to his new environment and to the new kind of work.

The "hearing" of the trainee is also a problem. An operator spends most of his working day in the machine room where there is a considerable amount of noise. The blind operator must have a highly developed sense of hearing, so that he is able to distinguish the correct operations of the machine from the faulty ones, a task for which the sighted operator normally uses his vision.

Small number of blind trainees makes development of performance tests difficult

One of the possible results of our research will be the development of special performance tests for blind IBM operators and computer programmers. However, the small number of blind trainees makes it difficult to develop dependable norms for these tests. We have discussed this problem with specialists in psychology and rehabilitation. They advised us that until specialized tests can be formulated, the success of the trainees must be our guide. Therefore, the criterion of success was and is determined in the following manner: After the courses are completed and the trainees placed, we will try to evaluate retrospectively which factors are common to those operators who have been accepted by their employers and integrated into the new framework.

I have tried to describe briefly our work in rehabilitation of blind, partially sighted, and otherwise handicapped persons in automatic data processing. I hope that our efforts will also contribute to rehabilitation centers around the world in their experiences in this field.

The Training of Blind Computer Programmers

JOHN DeRUYTER

Mr. DeRuyter is director of education at International Academy in Brentwood, Maryland.

A major concern in the rehabilitation of the blind is the establishment of a pattern of training which will lead to employment. Until recently the outlook for employment for the totally blind has been rather restrictive. However, within the last five years, a new avenue of hope has appeared upon the horizon: computer programming. This field has revolutionized management thinking in large corporations and government, as well as in a number of smaller industries in our country. It has also brought about a total revolution in the labor market. The demand for experienced and qualified programmers is such that wage scales for this labor category have grown tremendously. Let me cite an example: a high school graduate, with approximately two years of experience in computer programming, can earn in the neighborhood of $8500 to $9500 per year. In what other field of endeavor is this so?

In early 1963, a National Institute of Health grant was given to the Medical Computing Center of the University of Cincinnati to explore the extent to which computers can aid in the rehabilitation of the blind. This study was conducted to develop techniques and aids to enable the blind to become computer programmers.

Author First Trained Blind Person Privately

☐ In the summer of 1964, I started to train, privately, a blind paraplegic as a computer programmer. At this time, evidence as to the feasibility of this training had not been thoroughly evaluated, but conjectures were made that enough experience had been gained in order to validate training the blind in computer programming. I went ahead, knowing that I could in no way guarantee success, but proceeded with the idea that it was worth a try to give hope to this young man. He desperately needed the opportunity to prove to himself and to others who might be in the same unfortunate circumstance as he was that it was not only feasible, but possible for the blind to function as programmers, and to earn the right to compete with sighted counterparts.

Heavy use made of records

The training of this man was conducted, not in a laboratory atmosphere, but on a private tutoring basis in his home. I did not have the benefit of a large staff, a computer system at my disposal, or any special equipment when training started. Recorded lessons were the basic process used in presenting the technology of the field. More than 200 hours of recording time were logged to transcribe the texts needed to present the basic concepts of computer programming for the IBM 1401 computer. All tests and practice exercises were also recorded, to give the student understanding and knowledge of the basic con-

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This paper has been adapted from a speech Mr. DeRuyter gave at the 1967 American Association of Workers for the Blind convention in Miami Beach, Florida.

cepts. In conjunction with these recorded lessons, a series of discussion get-togethers was held, affording the student the opportunity to ask questions about those areas not clearly understood, and to explore techniques that could be used to develop computer logic in execution of a successful program.

As the training progressed, methods and techniques were developed to aid in the process. I made use of the experiences of the University of Cincinnati study; other aids were employed which I felt would be beneficial, and which later proved to be very successful. As we approached the end of the technical phase of the training, I made use of a payroll application to give the student the opportunity of practical experience, so needed in the development of a good computer programmer. Without the use of a computer system to test and run his program, the student would not have the opportunity to evaluate his logic used in the program. My employer allowed me to use one of his. Without it, the training would have been ineffective. Since the blind student could not communicate with the standard computer output, the ink print copy, he wrote a program to translate the standard English print into the braille cell, and have the computer's printer produce the braille. This allowed him to communicate directly with the computer without the aid of a sighted individual to read each detailed instruction and result printed out by the computer.

Training took fifteen months

At the end of fifteen months, I was convinced that this young man was ready to work as a computer programmer. A prospective employer would not have to purchase or rent any special equipment, or use any special materials to aid the blind programmer in the discharge of his duties, because of the aids and techniques developed during training. A piece of felt from an old hat, or an ordinary man's garter were the only special equipment used. He was prepared to be as independent as his sighted fellow worker.

Placement

☐ Through the efforts of his rehabilitation counselor, Eugene Spurrier, of the Baltimore Division of Vocational Rehabilitation, and six months of negotiations, this blind paraplegic was accepted for employment by the C & P Telephone Company of Maryland, for a one year probationary period. We had no illusions that this would be an easy year, but confidence in the ability of this young man left no doubt in our minds as to its successful completion and his final acceptance by the employer.

Reactions of employer

After a little over six months of employment, George Keller, Eugene Spurrier of the Baltimore Division of Vocational Rehabilitation, and I visited the student at work and discussed with his immediate supervisor the disadvantages or difficulties encountered. I would like to share with you the comments made by this employer:

1. Admittedly apprehensive at first, did not know what to expect, just couldn't see how this man could function as a programmer.
2. He adapted well to his new environment and his fellow workers.
3. He soon proved that he could overcome any disability that he possessed. His personality and his confidence soon proved that he was an exceptional individual, and in a short time he proved that he could do the job.
4. He was assigned the task of reprogramming a job of medium level com-

plexity that had been operating for approximately two years. He combined five previously written programs and condensed and optimized the instructions to increase the thruput and efficiency. He completed this task in a minimal amount of time, experiencing the errors common to most programmers.

5. He had to get acquainted with the language and operation of the telephone company. However, this is not unique to the blind programmer, but expected of all new employees. He accomplished this in near record time.

Some of the disadvantages

In discussing further what he felt were disadvantages, the employer commented:

1. A blind person could not function as a maintenance programmer. He would have difficulty because the program he had to work with was not one he had written, not his thoughts or logic. It would be easier for him to rewrite the problem.
2. He has a tendency to be more verbal, since he is sometimes unaware of his fellow employees' presence.

After commenting on these problems, the employer hastened to mention that they were of no great consequence. All of them could be overcome with understanding, and by employing other means to accomplish these tasks.

During our visit, we ascertained that the services of this young man were certainly an asset to the company, and that he would be recommended for permanent employment within a short period of time, before the year's probationary period ended. This, I think, speaks for itself. It can be done.

Author's Experiences at School Teaching Blind Programmers

☐ When I joined International Academy, as its director of education, we decided to establish a program to train a large number of blind students in computer programming. Relying on my personal experience in working with the blind, and on the knowledge and experience gained by the Medical Computer Center in Cincinnati, the Academy announced the starting date for its first blind programming class in November of 1966.

Success of program dependent upon a number of factors

The success of this program was dependent upon a number of factors:

1. The training facility should be a reputable institution capable of teaching the handicapped.
2. It should have an accepted curriculum designed to teach the fundamentals of computer programming, develop an understanding and appreciation of the logic and reasoning associated with programming, and employ practical applications to acquire the necessary experience.
3. A computer system for training on the school premises.
4. Qualified instructors, each knowledgeable in his field of specialization in data processing.
5. A placement service, to aid the student in the successful pursuit of employment.

Major areas in Training Blind Programmers

☐ There are three major areas in the training of the blind computer programmer: selection; training; and placement. First, what criteria do we use to select the student for training in this field? Does he have to be a special breed of man? Does he have to possess powers not common to most of us? The answer to these questions is "no." Then, just what are some of the qualifications that are necessary? He must be a high school graduate, having attained C plus or better in his overall grades. A person who wants to get into one of the specialized areas of data processing, such as scientific or engineering applications, should have a degree in mathematics or a related field. The subjects that are important in evaluating a student's academic history are languages, bookkeeping, accounting, business and finance, mathematics, music, shorthand, and other related courses. The student should be intelligent, that quality which would recommend the student for college training. He should be competent, self-reliant, not dependent on others for help. He should possess the characteristics and appearance necessary for employment. Sex, race, and age have as yet proven no barrier for the qualified individual. He should be tested to see if he possesses the necessary skills of abstract reasoning and logical thinking. These can be determined to some extent by a battery of tests designed to aid in the measurement of mental abilities. It must be remembered that these are just guide lines for selection. The computing profession is a broad field, having a great variety of applications and employing a large number of different people. No one individual can conform to a uniform intellectual and emotional standard.

Criteria for selection of students

Effectiveness in training is based upon a number and variety of requirements and techniques. The student must be proficient in the use of braille. Without this, his chances of succeeding in training and employment are slim. This is the backbone of his communication with the computer. He must have a well organized mind to develop work habits. A student is allowed to use whatever tools aid him best in accomplishing his task, and those which makes him comfortable and confident.

Training techniques

Some of the techniques used in training and students at the Academy are: (1) blackboard instruction. Effective as long as the instructor explains in detail each step that he is performing. This helps the blind to draw a mental picture of what is being explained. It also helps the instructor in pacing himself in his presentation, keeping him from going too fast, allowing sufficient time for absorption by the student. (2) Lecture periods broken up into segments, normally no longer than two hours each. Periods of practical applications are integrated into the day's activity. In the beginning, these may take the form of group discussions, and as knowledge is absorbed, when practical programming applications are undertaken, actual laboratory sessions are involved. (3) Team or group efforts are also used. These help the blind students to develop a cooperative working relationship with his fellow workers, and help to present collective ideas on how to perform certain tasks within programming. (4) Rotation of instructors during the courses of the curriculum utilizes the most qualified person in the special subject area. No one instructor has been found capable of presenting the full curriculum, just as a musician would not be capable of presenting lectures in physics. This technique eliminates the conveyance of single viewpoints and philosophies. A student is aided by developing his understanding of communicative powers with a number and variety of persons.

Tools the student will need

Tools that aid the student in performing his tasks as a programmer include a braille writer or slate; a tape recorder to be used as a means of recording

(Continued on page 23)

The Third Generation—A Challenge to the Blind

RICHARD D. ROYSTON
NORMAN M. YODER, Ph.D.

Mr. Royston is president of Computer Systems Institute, Pittsburgh, Pa. Dr. Yoder is commissioner, Office for the Blind, Commonwealth of Pennsylvania.

The conductor of a symphony brings together the talent and the effectiveness of the individual musician through his interpretation of the score. But the conductor and the musicians are relatively useless unless the composer has first written a score. Thus it is with third generation computers. The computer's " operating system " can direct the components, translate, interpret, and deliver a finished product, but the implementation of this complex and flexible machinery is the work of the programmer.

☐ Today's tremendous advances in machinery (hardware) and programming (software) coupled with the extensive interaction of these two, distinguish the third generation system from its predecessors.

The first generation systems had to be programmed in actual machine language, closely akin to hieroglyphics, a tedious and most difficult task. The second generation saw faster, more dependable hardware along with a series of programming aids (software). These aids often took the form of translators, similar in some respects to a U.N. interpreter. These permitted the programmer to write in a language closely akin to English which could be translated to machine language.

How Third Generation Systems Differ from Predecessors

The third generation systems pick up where second generation systems stopped. The software support provides automatic control of the equipment, data and program organization, scheduling of jobs, and the integration of simultaneous activities within the computer. The software support serves much the same function as the air traffic controller at J. F. Kennedy Airport, which would virtually be closed down without his services.

More sophisticated composers needed

Today the need is for more sophisticated " composers." The hardware has added capabilities and the software has relieved the programmer of the repetitive, elementary tasks required in programming. Now the programmer must concentrate on using these capabilities to their fullest extent. This represents a higher-level of programming effort than was required with earlier equipment.

While the employment of blind persons in this profession is relatively new, it is now essential that all training be geared to third generation hardware and software. Without proper training, the blind individual may find himself in a position comparable to the musician who is less than a soloist, and who is dependent upon supportive instrumentation for his success. Unless agencies for the blind are prepared to recognize this challenge and to meet the challenge of advanced training, the blind individual will not be prepared to meet the requirements of the industry.

In an article in *Fortune Magazine*, March, 1967, entitled "Help Wanted: 50,000 Programmers," Gene Bylinsky said, "The advent of faster, more versatile computers has set off a frantic hunt for people who can write the instructions that make the machines work . . ." Many companies that have invested in the latest model computers find themselves increasingly frustrated by the discrepancy between the fantastic potential of machines and their own ability to use them with maximum effectiveness. Within twenty short years, computer electronics has gone through a phenomenal revolution.

Computer programmers in short supply

Computer programmers, the men and women who write the instructions that make the machines work, have been in short supply " from one day " as one man puts it, but today the shortage is worse than ever. About 100,000 men and women are employed as programmers in the United States, and there are openings for at least 50,000 more.

Time Magazine, August 18, 1967, in its article "The 'Software' Snarl," says, "The company is running into trouble—because of shortcomings in men, not in the machine. In just two decades, the electronic marvels have grown so complex and intricate to operate that man is hard put to maintain the proper control. The problem is one of telling the machines what to do and how to do it."

The software snarl is worsening despite gargantuan outlays to end it. In the six-billion-dollar electronic data-processing market, more money will be spent this year on software than on computers themselves. Yet the most versatile computers are forced to perform well below their potentials.

" Third Generation's " Significance for Training

☐ What significance does all of this hold for the training facility, the public and private agencies for the blind, and the blind person who desires to become a programmer? First, the training facility must be willing to invest in the necessary third generation hardware, a technically competent staff, and auxiliary equipment to meet proper training requirements.

To be more specific, proper training means giving a student a solid, broadbase knowledge of electronic data processing techniques and equipment capabilities coupled with detailed, extensive study and work on third generation systems. The student must have repeated experience with many different practical applications. He must use the equipment to obtain his own individual results and to evaluate his own work. All of this must be expertly led and guided by persons who have not only wide data processing experience but an intimate understanding of the blind and their specific needs as students and as potential employees.

We might compare this with teaching novel-writing to an individual who has not yet learned to spell or write English sentences. There are basics to be learned and purposes to be established. This is followed by many hours of writing, correcting, evaluating, and re-writing—first with small topics and later with progressively more complicated topics. The secret to success is practice, practice, and more practice.

What the training agency serving the blind must do

Second, the state agency or private agency serving the blind must be prepared to do an improved job of selectivity and to invest the necessary monies to secure the type of training which will enable the blind person to meet the employment standards of computer users.

Third, the blind person must be ready to assume rigorous training and become accustomed to logical problem-solving techniques and be able to recognize that he or she is writing a score (PROGRAM) not for a single instrument, but for an operating system which structurally may carry out a multiplicity of activities, all of which produce a single "printout" or in the parlance of the symphony—harmonious results.

Those of us who pioneered in training the blind and visually handicapped, both from the standpoint of the school and the agency, recognize that continued investment in the latest hardware and advanced training techniques is essential in order for the blind person to meet the challenge of employment in a labor market which today has a deficit of 50,000 trained individuals, a deficit which will continue and, probably, grow in the future.

Program and Results at One Training Facility

☐ As a training facility, Computer Systems Institute has had more than four years of experience in preparing blind and handicapped individuals for this field. Encouragement in assuming responsibility for this task has come primarily from the state agency for the blind of Pennsylvania and from other state agencies that have seen this industry as a new placement market.

During this time, we have enrolled eighty-one blind and visually impaired persons representing twenty states. While it is difficult for the school to maintain accurate records of its graduates due to their wide disbursement throughout the country, the following statistics are available. Of the eighty-one students who began the program, sixty-four were graduated, thirty-eight are actively employed in the field, seventeen have found employment in allied fields, and there is no record available on the nine remaining students. More importantly, of the sixty-four graduates, thirty-nine are totally blind and twenty-five are visually impaired.

Slightly over 50 percent of the seventeen dropouts left the program in the initial states of training because of medical or other personal problems; the remainder left the program either at the invitation of the school or through a recognition on their part that success in this field was not imminent. Of the dropouts, eleven are blind and six are visually handicapped.

Success depends on continuing responsiveness to technological changes

We have learned, however, that placement success depends upon strict adherence to the highest standards of a continuing responsiveness to the technological changes in the industry. Anything less perpetrates a fraud on the blind or visually handicapped person who believes that he or she is prepared to assume a position of responsibility upon graduation, but who finds that when approaching the employer, the facility has used archaic equipment, outmoded techniques and that, in fact, the agency has invested in second-rate training.

The challenge of third generation computer equipment is fraught with technicalities and complexities beyond the comprehension of the layman, but in its simplest form, computer machinery has developed from the over-sized vacuum tube concept to the transistorized concept to the use of miniaturized monolithic circuitry, and it's with this latter development that our future training and placement of the blind must be concerned. In each of these stages, the hardware has decreased in size and has increased in efficiency and output twenty-fold. Thus it can be readily seen that the programmer for this equipment must be in a position not merely to compose a sonata for a solo instrument but must be able to write the symphonic score in order to take full advantage of this modern hardware, if the third generation machinery is to be effective.

Students are taught all required machine languages. All student programs are self-tested at the computer complex which is maintained adjacent to the classroom, so the students graduate with a sense of confidence, knowing that at any given point, they can meet the demand of the software snarl with which the industry is currently plagued.

The computer industry is in its third generation. Training programs for the blind must also be in the third generation—anything less will not meet the challenge of 50,000 vacancies. The refinement of the machinery must be matched by the refinement of training and the continued ability of the programmer to write the score for this modern symphony of automation. To prepare a blind person for something less than this objective is to cheat him of an opportunity for employment and is a direct abrogation of responsibility on the part of the rehabilitation agency. Moreover, any facility in purporting to train blind persons for this field should have the resources to be accredited by a recognized and accepted organization and must have the patience and understanding to do the job.

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Sex Education of Blind-Born Children

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☐ Sexuality is at present very much in the spotlight. It is stressed over and again by educators and child psychiatrists how important a good sex education is for the optimum development of the child.

The sexual development and the sex education of a blind child is essentially not different from that of the sighted child. However, some special problems arise because of the missing visual faculty and because of the special situation in which the blind child grows up.

In general, education is determined by (1) the biological and psychological possibilities of development given by nature to the child, and (2) the pattern of culture in which the educator and the child live. The educator tries to offer certain ideals of the culture to the child and hopes that he will realize them. At the same time, each child finds himself living in the existing cultural and social order and should try to find his place in it and to become a positive element in it, if possible.

Normal Sex Education

The great problem of sexuality is that the biological and the cultural aspects are not at all in harmony with each other. Sex education should aim at the child's developing a synthesis of the biological and cultural, doing justice to both in the process.

At the beginning of this century, the social pattern showed a strong tendency to keep the biological aspect hidden as much as possible. A sharp reaction developed, as shown in the psychoanalytic ideas of Freud.

Biological and cultural aspects of sexuality not in harmony

In the present day social pattern, we find a marked desire for frankness in the sexual sphere. This frankness is increasing, as shown by conversations and discussions on radio and television. As for the nude, there do not exist many secrets about it anymore. Young men and women see each other on the beach and in the swimming pool in dress that stresses sex rather than hiding it. Though there is still hesitation to depict sexual copulation itself, this fear is gradually disappearing, especially in films; in belles lettres, it has vanished almost completely. These phenomena are freely accessible to youth today and they are accepted, although they may bring forth protests occasionally.

While frankness is increasing, there is still a clear reverse current, mainly among parents and some educators. This reverse current is fed by the fear of the parents that something may happen to their children if they become involved with sex too much, too early, or in not the right way. But they become involved with it, not only by seeing and hearing it everywhere, but by actually searching for it themselves.

Normal sexual development interplay of three factors

Thus normal sexual development occurs midst interplay of three factors: (1) the child's own impression of his sexual self; (2) the visual, audible, and tangible expressions of sexuality all around the child; and (3) the appeal to the child's own responsibility characterizing sex education.

The effect of sex education is determined by the mixing of these three elements and, further, by the way in which they relate to the world of experience and to the child's own emotional patterns and possibilities.

Sex education clearly has two aspects. The first is the enlightening or factual aspect: acquainting the child with the structure and the function of the genitals; the physiology of coition; and also something of the physiology and psychology of the other sex, more or less in the sense of "Boys (or girls) will be such!"

But sex education has quite another dimension: the child is going to experience sexual feelings within himself and he must learn that these feelings are inherent in being human and must be integrated into his whole emotional development. The educator's task is to coach this process; in this respect, the psychosexual maturity of the educator himself is most important.

Sex Education of the Blind

☐ While the sexual possibilities of a blind-born child are essentially no different from those of a sighted child, this development in a blind child is more difficult than in a sighted child. The difficulties start with the first enlightenment on the difference in sex. In general it is not difficult to hide things from blind children and we see this done regularly with sex. The blind-born child becomes acquainted with many daily utensils by feeling them all over. At the institute, this occurs very purposefully; objects that cannot be obtained in natural form are replaced by models on a reduced or enlarged form if necessary. The parts of the child's own body, too, are extensively felt and named when teaching. But this teaching hesitates with the child's own genitals and stops completely with those of the other sex.

Likelihood that blind children will have erroneous ideas

The sighted child of the same age has of course already seen them and adjusted to them as quite normal. The blind child nevertheless picks up something about sex differences and as a consequence the anatomic enlightening at last comes into swing. But this learning always comes much later than with sighted children, and all kinds of erroneous ideas are likely to arise in the blind child in the meantime.

It is even more difficult when the blind child later forms ideas about sexual copulation. It appears to us that misrepresentations especially arise about the dimensions of the genitals of the other sex and sometimes even about their location. Many blind boys have told us that they brought about collisions with girls intentionally with the object of becoming somewhat oriented about the place and consistency of breasts. Here we find ourselves in the very heart of the problem. Blind children learn their surroundings by fingering them intensively but everybody believes that a blind boy's or girl's touching each other out of curiosity will in fact be very close to caressing on the grounds of erotic feelings. And that's just the point!

It was not so very long ago that the sex education of blind children stopped at a negative warning attitude, at the prohibition of even walking with each other. From a letter of a former pupil of our institute we quote:

> From my institute period remained an enormous impulse to keep myself at a distance from the boys. And I know that many group members are still suffering with it too. At the age of fourteen, fifteen, we used to take a walk in the schoolyard, before and after schooltime, with the boys.
>
> Obviously the guides got nervous about this and so we were sermonized for half an hour, three times a week on the average. "What will people outside the institute think of your walking together and just fancy if something happened!" In the long run we got to understand what this could mean, but we found this thought completely ridiculous.
>
> However, in the beginning we asked ourselves seriously what they could mean with it: "If something just happened." We told ourselves to just let "these old maids" talk rubbish, since these older guides probably would not know what it means to a blind girl in an institute to have a boy friend. Yet the education at the institute has caused me to banish the boys still more fiercely from my mind. Now that I am twenty-six years old, I am still reluctant and I do not wish to give way to these things. And I know that many other blind girls will experience this in the way I do.

Frankness within institutions on increase

At present a similar attitude on the part of the institute is not possible, since sexual frankness has penetrated so much into the whole of life that it has also come to the institute. Children, especially in adolescence, hear people talk of these things everywhere. They hear about "the pill" and realistic literature.

Concerning such literature, it should be observed that blind children, compared with sighted children, read it considerably less since it does not appear in braille or on talking books. Nevertheless, they hear about these things; their curiosity is aroused, and then they ask their guides to read some modern literature to them! Fortunately the present-day institute leaders, for the most part, are of the young generation too and thus have grown up on it. Practically all of them have a fiance or a friend or at least have had one previously. However, they still have their diffidences, sometimes because they come from a milieu where they do not speak about these things at all. And they experience, time and again, that it is much easier to read to one's self about sex, or to contemplate it and puzzle it out for one's self, than it is to talk about sex in a justified way to growing children with their problems.

Frankness often far from positive

This timidity to speak of the sexual is, of course, as valuable as frankness, since frankness is often far from positive. It may be a sturdy attitude or a display of one's daring, sometimes there is even an exhibitionist element in it. But it is quite different from the frankness an educator needs to guide a child with his problem. Younger group leaders, who are still finding themselves in terms of psychosexual problems, are in need of some support and supervision in these matters.

Uncertainties of parents about sex education

Now, the objection may be heard that this is after all the task of the parents. However, we know only too well from experience how often parents prefer to leave sex education to others, especially parents of the congenitally blind child. This is perhaps due to the fact that the child himself originated from the sexual relationship of the parents and this relationship has been shocked to its roots because of the procreation of a not completely normal child. The fear that heredity plays a part and that the child himself, once married, may beget blind children makes these parents very uncertain about sex education.

The problem of heredity is great too for the blind children themselves. The possibilities of marriage for the blind, especially girls, are considerably less than those for the sighted. Formerly these chances were practically nought.

Through the emancipation of the blind, promoted by the institutes for the blind, the chance of social independency and thus of marriage has been strongly on the increase in the past decades.

A blind boy will more easily find a woman, who in the care of her blind husband and in handling his specific difficulties sees a life task, than a blind girl a man. Many men fear—and, of course, not wholly unjustly—that a blind woman will fail somewhere in her accomplishment of her task as a housewife and more still as a mother. Of late it has become more and more customary that two blind persons marry each other, but for eugenic reasons decide on childlessness.

It may be asked whether sex education really makes sense for these children, half of whom will certainly not marry. It is, however, our firm opinion that for a person to assimilate the problems of the single state, he needs the same sex education as the person who marries. Sex education is not just a manual for marriage; it is, first of all, extending a helping hand to the growing young person who has to determine his attitude to his own often oppressive sexual feelings, and then integrate them into his total emotional pattern, and then into society—a society so extensively sexualized today.

Recommendations

☐ In view of the above we make the following suggestions:

Blind children in an institute should be grouped in a manner as similar as possible to normal family groupings; that is to say, *co-education*, a *vertical group division*, and a *mixed* staff. This is not to pretend that a completely separated grouping of children and management, together with a horizontal group division, would make it impossible to come to a justified sex education, but through a far-reaching co-education, children will learn to experience sexual differences as self-evident. Moreover, it is much easier to talk about sexual difference in such groups, and it is much simpler to coach further psychosexual development.

Importance of learning to get along with others in a natural way

In this way, the institute offers children the chance to learn to get along with each other in a natural way. Older girls can be helpful in bathing little boys. Older boys and girls may sit together in the evening in a pleasant and normal way. In horizontal separate systems, such a pleasant evening has to be organized beforehand, all kinds of precautions have to be taken, and the whole thing makes a forced impression.

Difficulties of mixed education

We are not at all blind to the practical difficulties, especially in the field of organization, that a mixed education implies. The greatest difficulties probably lie in the mixed staff required. Putting male and female guides of about twenty to twenty-five years together in a situation somewhat similar to the role of father and mother may create strains. Real fathers and mothers are married to each other and thus have frankness in their physical attitude.

Solution at Bartiméus

Male and female leaders in an institute must have their private lives apart from their work; they should have their own rooms where they can receive their own relatives and friends. They should have their sexual privacy, whatever it may be. If such a male or female leader wraps up his private life too much in the life within the group, difficulties will no doubt arise precisely in the sexual area between the leaders themselves and between them and the children. This may be in a homosexual sense. The sexual education is then, of course, not served but only injured. A far more natural solution we have found at Bartiméus is for the married leader to live with his family in an apartment inside the pavilion. The lower management consists of unmarried girls. However, we still find in this situation that the male and the married elements are felt insufficiently.

Learning should begin at early stage

Learning about the structure and the function of the sexual organs should take place at an early stage—preferably in consultation with the parents—long before the children have sexual feelings themselves. This means it must be carried out before the tenth or eleventh year. The school, too, should contribute to the enlightenment. For blind children verbal teaching alone is not sufficient. With sighted children the teaching is always completed, intentionally or not, by picture, and also by the sight of others in a naked or almost naked state.

With blind children, such a completion is only possible by feeling physical models. In practice this is not at all simple. As far as such models exist, only the genitals are often concerned and then in cross section and removable. Mostly these models have been made of hard plastic or a similar solid material. These models are intended for the sighted and will give too little information to the blind about the mutual proportion of the members of the body and also about the consistency of the body of the other sex.

Value of nude forms as teaching models

Though we do not underestimate the social resistances that may arise against the following suggestion, we believe that it is recommendable to have male and female nudes as teaching models in an institute for the blind. We think of figures of normal proportions, made out of a smooth material, that will make all kinds of secondary sex features clearly discernible by touch: the more pronounced musculature of the man, the rounder, softer figure of the woman. To this end we are using torsos presently used in medical education, as well as mannikins and anatomic models of the male sexual organ specially designed by us. Our object is models that are completely realistic.

These educational appliances need not be kept away in a cupboard, the keys of which are in the hands of the educator. Rather they should be in a permanent, easily accessible spot where the children can meet them occasionally.

How much experimenting should the educator tolerate?

When the blind child becomes conscious of sexual life, he will receive experiences and even seek them out. Then the question is asked: how far should the educator *tolerate* this? Actually this is not the right question, for experience will come regardless, in some way or other, and it will then be of little importance whether it is tolerated or not. Far more important is how the male or female leader reacts toward the child and how the latter will accept it. To give an example: a blind boy and a blind girl are discovered together fingering each other's genitals. This will also happen with sighted children in a wood or in a park, but blind children have far fewer possibilities in this respect. They will, by force, seek a spot on the institute grounds, and then notice too late that they are just under the lantern. When they are rebuked for it, nothing has been solved; in the future they will just do it more secretly.

In a positive sense, the situation can be exploited only when a male or female leader, enjoying the children's confidence, knows how to manage the emotional situation. The leader must explain that interest in each others' genitals is quite normal, but that it may lead to strong sexual excitement and even to sexual copulation, and that, furthermore, the whole thing is characterized not by a deep affection ready to accept all consequences, but by a "love sickness" or fleeting passion and perhaps even a fear of loneliness. It should also be explained that the feeling hand, by which every blind man examines the whole world around him and by which he comes to know it, has touched something very emotional. Each blind child must learn to get along with this emotional feeling, which is so closely related to his normal pattern of searching out information about the world. When a male or female leader can also take it calmly, the whole experience can be used positively and lead to a greater maturity about sex. The fear "If something would happen" does not speak of a great sense of reality, for "something" will happen over and over again, and something must happen too, in order to get the growing-up blind child out of his isolation, especially out of his sexual isolation.

The problem of the blind child—certainly in an institute—is simply that so few things happen, and that it is so easy to keep the child away from all sexual knowledge and experience. For this reason sexual development threatens to grow crooked.

What the blind children themselves want

We have frankly talked this over with various older resident children of Bartiméus. In the first place they ask for frankness on the part of the institute leaders on sexual matters, particularly regarding books in which the sexual is described in an open way—books that are much read by the sighted youth but which are frequently withheld from the blind. A critical collective discussion on the subject is not at all avoided by the blind children, and they do not accept the idea that such books should be withheld from them because they would not be good for them.

Importance of private conversations with educators and physicians

Furthermore, they appeared to very much appreciate having one or more private conversations with one of the educators, and also with a physician, primarily because of the wrong ideas they still had about the genitals of the other sex and all the things inherant to them. For instance the boys had special difficulties in realizing what menstruation and sanitary napkin imply. The best thing appeared to just hand the boys a very concrete and tangible sanitary napkin, by which the whole thing immediately became a reality to them, and not a gruesome and dark matter of the other sex. Then there were the unavoidable questions about contraception, a subject about which every growing-up child should know something and about which he should learn to contemplate. It is not easy, by the way, to clarify for the blind child a condom or a pessary, since explanation by drawings is precluded. The only way is for the blind child to get such an object in his hands. The "pill" has made this easier, since pills are objects of daily life known to the blind.

Marriage

One of the most difficult problems in private conversations with blind children is the question of what are their own chances of marriage, how far should they prepare themselves not to marry, and what would be the eugenic and social objections in case of marriage, to having children. We see from this how different are the problems of blind children from those of normal children, who automatically think that they will probably marry and have children.

Necessity of support and education for the staff itself

The preceding discussion shows how much is asked from the management in terms of understanding and tact. Even more is required when one considers that the personnel themselves have the same struggle with sexual problems. Support and education for the staff through conversation groups is essential, but that would go beyond the scope of the present article. Exactly because of being confronted so intensively with all these problems, the staff members themselves achieve greater maturity, partly, of course, by trial and error, as is the case with all of us. Thus, the level of the educator's personality is decisive for the level of education.

The Training of Blind Computer Programmers—*Continued from page 12*

ideas and thoughts for later transcription; a typewriter to communicate with his sighted fellow worker, in getting the transcription of his instructions into a form which is acceptable by the computer system, (A substitution for this method is a portable key punch machine, with which the blind programmer can eliminate the intermediate step of typing instructions for the key punch operator. A braille card reader that gives the blind programmer the ability to read the punched holes in a card. This eliminates the need for a sighted individual to interpret his work while it is in the form of punched cards.)

Placing the student

In placing blind programmers, a number of considerations must be kept in mind. (1) First and foremost, the blind student must be thoroughly trained and competent to perform the task of programming. This has been the responsibility of the training institution. (2) The blind programmer must be able to satisfy the prospective employer that his handicap will not interfere in the smooth performance of his own work and that of his co-workers. He must also be able to satisfy the employer that he can perform his programming job at a satisfactory level. He must be able to satisfy the employer that no special equipment is needed to perform his programming job, and that he comes equipped with all the tools needed to accomplish his task.

I think that it can be safely said that there is a bright future for the qualified blind person in the field of computer programming. Those blind programmers in the working ranks have proved, without a doubt, that they can discharge their duties with the same competence and ability as their sighted counterparts. No greater tribute can be paid to the blind community as a whole. Indeed, we can be thankful that there have been those who have given their time, their talents, and their dedication to help those less fortunate than themselves.

The AFB Research Index

JAMES W. LINSNER

Mr. Linsner is supervisor of the IRIS Document Center at the American Foundation for the Blind, New York City.

In work for the blind, as in any other field of endeavor, there is a constant need for information. What others in their field are thinking about and experimenting with is of great interest to engineers, teachers, psychologists, and other professionals. They want to apply the understanding and insights gained through the experience of others to their own work. If they are researchers, it is crucial that they know the history of similar research and keep track of current projects.

Coping with the Information Explosion

☐ How are these people to find the information they need? How are they to learn of the existence of an article or report which may be important to their work? How can busy professionals find time to wade through the thousands of articles, dissertations, patents, government reports, etc., that now appear every month? The answer is, of course, that they can't. The "information explosion" has made it impossible for a man to do both his work and his reading. He usually finds that specialized searching and selecting services can be of great assistance to him.

International Research Information Service

The International Research Information Service (IRIS) is in a unique position to provide such a service for those interested in research for the blind. The IRIS staff is conversant in both technological and psychosocial research, and can selectively peruse many scientific journals, abstract lists and other acquisition lists each month. Furthermore, the staff is in touch with researchers throughout the world who frequently send in project reports and unpublished memoranda regarding their own work, and who often alert IRIS to the existence of other documents of interest, including foreign language items.

The IRIS Document Center has been collecting and codifying this information since 1962, and is now offering an index to these documents. The new AFB Research Index is in loose-leaf form. An updating service will be provided in the form of quarterly supplements, to be issued on a subscription basis beginning in March, 1968 (see footnote at end of article).

Purpose of Research Index

As with any documentation system, the basic question is one of purpose. Purpose, more than anything else, determines what kind of information is to be collected, and to what kinds of users it will be furnished and in what form. Our purpose is to supply needed information to researchers, whether they be sociologists, neurophysiologists, or electrical engineers, and to professionals directly engaged in services to blind persons—teachers, consulting psychologists, etc. Thus the documents must necessarily derive from a broad range of the natural and behavioral sciences and technological specialties. What kinds of user need will such a collection satisfy?

Kinds of Information Needed

☐ We can, I think, distinguish three basic kinds of information needed. The first is usually called "current awareness." This is the need most keenly felt by researchers. A researcher needs to know what is being done by others working in the same field. This information enables him to avoid costly duplication of effort and often provides stimulating questions and ideas from which he can profit in his own research. The second type of need, while somewhat less common, is equally important. We may call it a generic or "state-of-the-art" survey. Both researchers and professional workers occasionally want to go through all of the research findings, both past and current, on a particular subject. The third and least common need is for a highly specific piece of information—a seldom-used technique or formula, etc.

"Current awareness"

"Generic surveys"

The AFB Research Index is designed to satisfy the first two of these needs. "Current awareness" is, of course, a relative term, and to some, quarterly supplements will not seem frequent enough. For the present, however, the influx of documents is not large enough to warrant more frequent distribution. "Generic surveys" will be particularly fruitful, given the general qualification that the research must have something to do with the problems faced by blind persons. For example, if a user looks under READING, he will not find all possible information about reading. He will find investigations of the reading problems and habits of blind persons.

"Fallout" from basic research

There is one further type of information that we have attempted to capture in this collection. It concerns certain areas of basic research, such as sensory physiology, sensory deprivation, neural coding studies, etc. Some of the investigations in these fields may ultimately be of great value to those engaged in more directly pertinent research projects, and we are selectively screening this "fall-out" from basic research. A user who looks under SIGNAL DETECTION, for example, will find only a very small fraction of the literature, but he will find, among other things, some interesting reports of comparisons between auditory and tactile or auditory and visual function. This, then, constitutes a second and more limited type of generic survey which can be performed with the Index.

However broad the range of subject matter in the IRIS collection, the anticipated size of the collection is fairly small. Consequently it was decided that for the present and foreseeable future, an efficient manual system for retrieval of the information would be preferable to a more costly mechanized system. We chose a book-form system in which no cards, hole-punchers, illuminated screens, or other pieces of equipment are necessary.

Description of Research Index

☐ The Research Index is a three-volume loose-leaf set composed of a *Dictionary of Descriptors, a Scan-Column Index, and a Bibliography.* When a document is acquired it is assigned a serial number and is then indexed using terms from the DICTIONARY OF DESCRIPTORS. The indexing is "natural" in that the terms are taken from the documents themselves. For the most part, they are words and phrases in common use, such as "adjustment," "braille," "communication," "compressed speech," "programmed instruction," "reading machines," and so on. Following each descriptor is a definition and a list of related terms. There are also many cross-references in the dictionary.

How To use The Index

☐ Each of the 130-odd descriptors has a corresponding letter code, and after a document has been indexed, these letter codes are recorded in the *Scan-Column Index*. This is the book-form indexing and retrieval system designed by Dr. John O'Connor of the Institute for Scientific Information. It is an efficient coding scheme and, fortunately, a fairly easy one to use. As an example, to find all the citations pertaining to intelligence tests for the blind, the user merely runs his eye down the 13th column of each Scan-Column page looking for the symbol "t." Every time a "t" is found, he writes down the serial number of that document. When he has finished this process, he has a complete list of references by serial number. If he is interested only in tactual, nonverbal intelligence tests, he must scan for three symbols at the same time. This is much easier than it sounds. A three-term search, for example, can be performed at the rate of about 500 documents per minute.

Armed with his list of serial numbers, the user now turns to the third volume, the BIBLIOGRAPHY, where citations are listed serially. Each citation includes all authors' names, the title of the work, the project or grant number, publishing and source information, and a list of the codes for all terms by which the document was indexed.

While we believe that the Index is quite easy to use, anyone who has difficulty with any part of the system may, of course, request our assistance. If, for example, he is unable to translate his interest into the terms of the Index, he should write us a short paragraph describing his interest, and we will formulate his inquiry in descriptor language. On request, we will assemble short subject or author bibliographies. We will also help users in obtaining out-of-print items and unpublished reports which cannot be found elsewhere. However, for the present, we will not be able to supply the documents themselves.

For the next two years, we will be inviting the criticism of both information specialists and actual users concerning the effectiveness of the Index, and we intend to remain flexible enough to incorporate such changes and supplementary services as are appropriate and are within our physical capability. In this way, the International Research Information Service hopes to fulfill, in one more concrete way, its sole function, which is to provide information to researchers and others engaged in work for the blind.

The Research Index will be ready for distribution in late January. Orders for the Index should be addressed to the Director of Publications, American Foundation for the Blind, 15 West 16th Street, New York, N.Y. 10011. Price for the three volumes (binders not supplied): $10.000. One-year subscription to the Research Index Supplement: $6.00. Sample sheets of each volume are available free on request.

A Time of Change—A Challenge to Administrators

JAMES R. DUMPSON

Mr. Dumpson is dean of the Fordham University School of Social Service, New York.

"A Time of Change—A Challenge to Administrators" uses terms that have come almost to be cliches. They are terms that we use every day and too frequently mean not only different things to different people, but far too often they have conflicting meanings for the same people in their several roles. We all accept that change, like natural law, is inevitable and inescapable and even though change is usually painful, we accommodate to it and overlook its real meaning, what is new as a result of it, and what opportunities and responsibility we have to direct its course. Some changes affect us only in our roles as parents, as members of a family. Others affect us as workers, others as users of a variety of institutions beyond the family and the services they provide. But rarely do we associate challenge with change in whatever role we have.

Like the word change, challenge too is oveworked in our everyday vocabulary. Of all the definitions I find in the dictionary for the word challenge, I like the one that identifies it with the call to exercise skill, strength, and knowledge. For me, this suggests a confrontation with whatever is different and a use of past experiences, insights, skills, and strengths to use and direct that which is different towards identifiable goals. It is within this context that I approached consideration of this statement. I asked myself, and I ask you—what changes can we identify that present a challenge to those of us who are board members, agency executives, and workers, and citizens as we direct our experience, knowledge, skills, and strengths toward the social purpose of all our efforts. What is different, in process, or already accomplished, that has relevance to those of us committed to freeing individuals and groups who are blind or visually handicapped to achieve maximum fulfillment? And as I speak those words of social purpose, even though we tend at times to leave their meaning vague, I remember that the values that underlie our purpose are rooted in our Judeo-Christian heritage. This fact should help us gain a measure of specificity.

I have selected for consideration a fundamental change in our thinking and practice that we tend not to identify as basic to much of the movement and development in social welfare programming and practice. We fail to factor out this underlying philosophical stance we have adopted because, when we identify it, we are a bit uncomfortable with it for a variety of reasons. But I wish to identify it, or really restate it because I believe only as we do identify it and come to terms with it, in our roles as board and staff, will we be able to influence its implementation in positive constructive terms. Only then can we use our

This article is based on a speech Dean Dumpson gave at the Executive Development Institute sponsored by the American Foundation for the Blind in Amherst, Massachusetts last spring.

experiences, insights, knowledge, and skill in directing the course it shall take toward our basic social purpose. When we do that, I suggest that the words "change" and "challenge" take on real meaning.

Acceptance and Implementation of the Concept of the Welfare State

☐ The change to which I address your attention is the acceptance and broadening implementation of the concept of the welfare state. I know the term evokes all kinds of negative responses for many. The core of the concept of the welfare state, for me, is nothing more than the utilization by government of all its social, economic, and political resources for complete human well-being—the realization of the social purpose of a democratic society; the assumption of responsibility by government for what happens to all of its people.

Recently in New York State, we experienced a dramatic manifestation of this principle at work. What really was paramount in the battle concerning eligibility for medicaid was the degree to which government should use its resources for the assurance of adequate health standards for the greatest number of people in New York—not in terms of the traditional, pauperizing levels of indigency, but in terms of the value we assign to an optimum state of health for our citizenry and the use of government's resources, contributed to by all of the people, for the broadest possible range of physical well-being of the population. What was called into question, under a variety of guises, was the extent to which government shall use its resources—in this instance its economic resources—to assure a fundamental aspect of human well-being. The decision of the state board of social welfare, supported against great political odds by the governor, was one of a number of similar answers that are yet to come in the implementations of this evolving policy posture as we seek the well-being of all our people.

The war on poverty, now reduced by the Congress to little more than a national fracas, can yet be another dramatic and constructive manifestation of governmental assumption of responsibility for what happens to its people. It can still become an occasion for government to utilize its economic and social and political resources in providing a wide range of exits from poverty for those caught in its grips, and so give to the poverty-stricken the boots with straps on them so they can with substantial material help, opportunity, and encouragement really pull themselves up by their own bootstraps.

Voluntary social welfare agencies have long considered themselves the traditional fighters of poverty. Whether they have been *the* fighters and whether they have succeeded or, indeed if they were *the* fighters whether they could have succeeded, are not the important questions. What is important is that government, by national policy has determined to use its resources—social, economic, and political for the well-being of that 20 percent of its citizens who have been denied access to the dividends of the national affluence. The economic opportunity act is not perfect. Congress, by its actions in the last session, and maybe even more so in this session, has turned a war against poverty into little more than a disorderly noise around the unmet needs of the poverty-stricken. But the policy has been established. We have nationally the political machinery available to use to amend, improve, and expand the economic opportunity act to suit whatever is required for implementation of the national policy. We have the tools available to mandate the Congress to authorize and appropriate the funds required to make the fullest use of the change that is our challenge.

Change in Government's Relationship to People

☐ One need only review the long list of enactment of social provisions by the Congress to gain support for the thesis that there is change in government's perception of its role and our growing acceptance of government's relationship to and responsibility for its people.

This change of government relationship to its people carries with it, I believe, a complementary change in perception of people who need a variety of services, it carries with it an enlarging understanding of the breadth and comprehensiveness of social need. We note, for example, clear understanding of the fact that the total context of American society must change as we have been forced to focus on the urgent necessity of bringing the negro into full citizenship. But, the struggle for civil rights for the negro has underscored the essential importance of human rights for all of our people—the policy that affirms that every individual in our society is valued and that not one shall be deprived or rejected or denied full access to every opportunity available to American society because of race or color, his economic status, his cultural background or the nature of his need. Full implementation of this affirmation of policy is yet to be achieved. But there is growing acknowledgement that a number of stategies will have to be employed including a redistribution of our income resources and a redistribution of our opportunity resources. Both of these redistribution strategies hold significant implications for voluntary agencies. As we confront the change in understanding and attitude implicit in what I am saying, let us be clear that, like the natural law, these trends cannot be reversed. The challenge we face is how to use our insights, our knowledge, and our will to direct the trends constructively in terms of our national purpose.

Principle of participation of those to be served

It is within the context of our deeper understanding of the potentials of even our most underprivileged and denied, and the new meaning that we have given to human dignity and self-respect that we now proclaim, in words at least, the principle of maximum feasible participation of those we seek to serve. Undoubtedly one of the great contributions of the economic opportunity act and of its administrators at the federal level until quite recently, has been the requirement that the poor and the consumers of services—those who are the target of its programs—must be involved in the development and administration of those programs. Many of us in the voluntary social welfare sector really have not accepted the far-reaching implications of this principle.

Departure from client-system oriented programs

It asserts, I believe, a changing perception of people—those we seek to serve, and of ourselves as helpers. I suggest that we not be misled by believing that this is an old, old principle put in a new guise. Far from it. Traditionally, we have approached people with a sort of over-under orientation; we in our great wisdom, with our expert professional skill, and sincere commitment knew what was best; we were justified, therefore, to hold a superior stance in our relationship to those in need of help. We developed a rationale that said that those in need had little to contribute to the solution of their or any other social problem.

Indeed, the rationale went on to assert that if they were competent to contribute to problem solution they would not be in need in the first place. But we are faced now with departure from these client-system oriented programs. In the war against poverty and among voluntary agencies that are part of it, people are being seen as having a right to participate in the planning and determination of programs and services using public funds as do other people in the community; as consumers they have a role in determining how the services should be given; and they like all people have a need which they must be given for opportunities to serve and contribute.

The enunciation of these principles initially have been related to the war against poverty under the economic opportunity act. But now, they are being pressed to other governmental services. Public welfare is challenged to find ways to accommodate its practice to this change of perception of the recipients of its services. How will the voluntary sector meet this challenge to change as it confronts the imperative to give up its traditional client-oriented system of help?

Changes Affecting the Delivery of Service

Permit me to add one final observation of change. This, too, has been crystallized into a statement of principle for public welfare. The Advisory Council on Public Welfare, in a recent report to the Secretary of Health, Education, and Welfare proclaimed its belief in (a) the universal availability of services; (b) the easy accessibility to services; and (c) the legal entitlement or right to services of all people who need and choose to use them. Underscored in these statements affecting the delivery of services is the essential need for adequate income available to all. I read into these proclamations basic changes in our concept of services and how they shall be universally available to people. I suggest first, that a new definition of services is called for if we are to be committed to universal availability. We are no longer talking about services for the poor or underprivileged. Universal availability carries with it the social utility new-services that are required for enriched living, for personal well-being in our modern-day technological society. They are services required by all people, not limited by the wish of the provider, status or diagnosis of the recipient. If they are to be easily accessible, we shall have to reorganize our delivery pattern. Decentralization of our services to the neighborhood level with the assured participation of those to be served in the nature of those services will be required. We are subscribing, it seems to me, to adapting our services to the needs and preferences of the users. And if entitlement means anything, it means that the right to services is buttressed by a defined right to appeal and a guarantee of the equitable distribution of the services available.

These are but a few of the changes that I find implicit in the report of the Advisory Council entitled "Having the Power, We Have the Duty." Change? Yes? Challenge. I believe they are inescapable not only to public welfare and the government that supports and administers public welfare; they have profound implications for all of social welfare—public and voluntary alike.

Implications of Changing Concepts

☐ Let me now propose for your consideration a number of implications—the challenges if you will—to you as board and staff members, of the changes I have identified.

1. The challenge to voluntary agencies to improve the know-how and facility in influencing public social policies that effect the well-being of individuals, groups, and communities.

2. The challenge to voluntary agencies to shift priority emphasis from the problem solving strategy of our traditional priority method in social work to a social change strategy that gives equal emphasis to community organization skills focusing on institutional change, sound social policy development, and the elimination of these social and economic policies practices that contribute heavily to individual malfunctioning, dependency, and social disorganization. Change in the environment in which people live needs to have the same emphasis in agency practice and use of resources as emphasis now given to pshychic functioning of the individual. I suggest that each voluntary agency redefine its function to include an advocacy role in behalf of those whom it serves.

3. Voluntary agencies, not unlike government agencies, must develop strategies in their organization and administration that makes meaningful the principle of "maximum feasible" participation of the consumers of their services. This means boards that are more representative of the area and population served. It means that staff develop skills for involving those who come to the agency for help in determining the nature of services to be provided and the manner in which those services are provided.

4. If my thesis that we are in the midst of change in the degree and nature of government assumption of responsibility for the well-being of all people is sound, we are challenged to find a new pattern of relationship between government and voluntarism. A more aggressive leadership role in identifying gaps in services and social provisions is required. A new model for financing voluntary agency services is indicated. Contractual arrangements between government and voluntary agencies for blocs of services for *all* people, indeed for large geographic areas are suggested with accountability as to standards and quality of services being a public responsibility. Political activity, but not partisan politics will need to be part of agency policy and practice.

5. Inventive ways must be found to meet the manpower crisis in social welfare if universal availability of services is to be assured. A new definition of social worker is emerging that includes use of a variety of levels of skill and understanding to function at a variety of levels of service provision. I view the social worker required to meet the challenge of practice as including those without college degrees, those with college degrees, with the M.S.W., and with post-graduate training. Agencies must meet the challenge of appropriately utilizing the skills of these various levels if they are to meet the changes required by universal availability of services.

These are some of the changes I see on the scene that have immediate relevance to the agencies you represent. Whether you accept these changes as the signficant ones is not as important as the urgency of your recognizing that there are pervasive changes on the American welfare scene. Either we change to meet the new or we ourselves in the voluntary sector will spell the doom of voluntarism in America.

Editorial Notes

Mr. Barnett's letter about the price increase in the September *New Outlook* has produced some interesting comments—not so much about the price (which most readers understand and accept, either by paying the extra sum or by regretfully letting their subscriptions expire), but about the contents of the magazine.

Because we are a forum for discussion, we thought it might be informative to relay some of the comments and to tell you a bit about how we select articles. We do not, as some of you may think, flip coins or draw articles from a hat. We do have some basic criteria for selection even though we know that they are not —and probably can not be—acceptable to all readers.

The glory of work for the blind is its diversity. But for an editor, the diversity is an immense problem. We run the gamut from the infant to the very old, from the worker who years ago started out "just helping the blind" to the experienced Ph.D. The field is a miniature universe, with blindness as the only common factor. So we have our problems in selecting articles that meet the needs of all the people working in the field. President Lincoln's comment about pleasing people is just about the only one that an editor of a journal in this field can follow, as you will see from the following representative remarks.

From a Rhode Island reader: "I shall miss the interesting, well-written articles on many subjects. But oh, what a relief not to read some of the bafflegab which occasionally clutters the magazine." This reader's example of "bafflegab" (such a lovely word) is the September article on concept development in children. But she also thought that the same issue had "some remarkably fine, informative, well-written articles," specifically those on the preschool program in Seattle, the museum in Philadelphia, and the preventive psychiatry program in Connecticut.

Yet, those same articles that our Rhode Island reader found so useful and practical upset a Massachusetts reader.

His comments were especially interesting because he first noted that he was not a professional worker in the field, but rather "an interested blind person," which, he acknowledged, might disqualify his comment that the *New Outlook* is not "truly a professional journal."

He said, " I have found only a very few articles in recent issues that are stimulating or thought-provoking . . . . The article on the children's corner in Seattle is a mere description of a program—hardly anything profound in that. Yet another description—the Touch and Learn museum; yet another—teenagers' comments on mobility. All these have some interest, but I hardly call them worthy of inclusion in a professional journal. Where do they lead? Most of what is worthwhile in these could be summarized in a few paragraphs."

He also had mixed feelings about the concept development article: ". . . a lot of statistics that may be meaningful; but I can hear other researchers pooh-poohing the small sample; other people pointing out that the conclusions were obvious before this article . . . ."

Meanwhile we hear from others that the only way to make the *New Outlook* professional is to make it more technical, more research-oriented, even to the point of insisting that every article be researched and documented with a bibliography.

So where does all of this leave us? With a chance to tell you how we select articles. First we must remember the basic problem of diversity in the field. This means that the only answer is to try to reach a balance of subjects and audiences. But before we make the "balance" decisions, we first decide whether an article is reasonably well written and fairly clear, and whether it can, if necessary, be rewritten by the author.

After this initial decision about an article's style, we try to balance our selections with the following considerations in mind:

1) Subject area—education, rehabilitation (both vocational and personal management), social work, agency administration, mobility, deaf-blindness, etc.

2) Type of blind person—infant, child, adult, aged, congenitally blind, adventitiously blind, etc.

3) Type of article—philosophical, research-oriented, "how to do it," etc.

4) Type of audience—teacher, social worker, researcher, a new worker in the field, one who has been working for 30 years.

5) How recently have we dealt with the subject? How important is it just now?

We strive for balance in each month's issue, unless, of course, we run a special issue on a certain subject as we did in September when we concentrated on children and education. More importantly we strive for balance over a period of a year or two. To the reader interested in only one facet of work for the blind, this may not be clear or may not even be of much importance. But the *New Outlook* is the only across-the-field journal in work for the blind and therefore must try to cover all areas.

P. J. S.

Letters to the Editor

Dear Editor:

I'm totally blind. Some know me for my books of poetry. Lately, others are getting to know me for my pictures.

From time to time the news covers items which rouse my curiosity as to what may be going toward investigating the means of teaching the blind what seeing is. Tradition has balked at this as reflected in the writing of *Beauty for the Blind and the Sighted* by Eaton, and *Museums in the Education of the Blind* by Coon. However, tradition is short lived these days. The public schools are teaching color usage, and creative art. Since many of the blind are no longer ushered into the world under the guidance of institutions for the blind, there may be a greater need to compensate for sight knowledge. I would awfully much like to gather as much pro and con material on the matter as I can possibly get. I propose either organizing a letter symposium, or setting up an investigation project. Perhaps I should summarize the approach as I understand it from personal need.

SEEING is mental interpretation of physical response to light. Two eyes combine for the normal organ of seeing or light detection.

LIGHT is energy in seven distinct wave-lengths. Each distinct wave-length is a color. The major source of light is the sun.

IDENTIFICATION is necessarily a matter of experience and memory. Direct light will show space which is fully as important as mass. Reflected light shows mass and interprets shape of space and mass relationships. Shape will be deduced from light reflected from the surface of objects. The surface of objects affects the kind of wave-lengths reaching the eye which is interpreted as color response. Light intensity will affect color shade and the lack of color. Light produces shadow when the bulk of a mass gets between light source and the area looked at. Light source will include variations to be interpreted, distance by comparative size, graded merging line to the distant vanishing point, dulling of color exactness and general blue aspect as distance.

DESCRIPTION and EXPLANATION is slow, much slower than observation. Vicarious seeing can be quite explicit. Even the blind can draw to verify their concepts.

Let's not duck the issue! Most of us won't ignore it even if we are blind. Maybe there is a better approach than our individual happy accidents. I would enjoy correspondence for and against.

Merrill A. Maynard
Taunton, Mass.

Dear Editor:

I have long been distressed when colleagues sit back and say: "a blind person is unable to do that." I have always been trained in and have practiced the theory that a well qualified person, regardless of his disability, can be placed in a selective position. I am of the old school of employment counselors who believe very strongly in certified placement.

Too often it is the fault of the counselor who sits back and does not get out of his office to make placement contacts in his clients' behalf.

During the past few years, there has been more and more talk about placement of blind teachers. It seems that this has met with varied success.

Here in the state of Wisconsin, we have a total of five visually handicapped teachers in public school systems; four of them are of the 20/200 variety or less and the fifth is totally blind.

One partially sighted male has for some time been employed on a high school level, teaching social science. Another male teacher is employed in the music department as an instructor of instruments, specializing in orchestra. One partially sighted female is employed in the elementary school system in a small town. Another partially sighted female is employed in the school system of a large city as a resource teacher for the visually handicapped, on a junior high school level. She also teaches one general science class to normally sighted students. The totally blind female is employed in the school system of a large city as a voice and instrument instructor in the music department in a junior high school. Three of the five found positions by themselves. The other two were placed by this agency.

Again, let me repeat, I have not found it difficult to place an individual even though handicapped, who has been properly trained and is qualified for the position he seeks.

I hope this information will serve to assist other employment counselors when they are attempting to place the various handicapped clients they serve.

Thomas H. Stout, Jr.
Employment Counselor
Services to the Blind
Department of Health & Social Services
Green Bay, Wisconsin.

News in Brief

■ Dr. Peter J. Salmon, administrative vice-president of the Industrial Home for the Blind, received National Industries for the Blind's 1967 R.B. Irwin Award for outstanding achievement in the field of workshops for blind persons. The award was presented to Dr. Salmon at NIB's annual meeting in Washington in October.

At the same meeting, NIB announced the creation of a new award—The Peter J. Salmon Award—which will honor outstanding blind industrial workers. The first award will be presented to a blind worker from a sheltered workshop or private industry at next year's NIB annual meeting.

■ The new Lighthouse Library and Virginia Morris Pollak Museum Collection of The Lighthouse, The New York Association for the Blind were formally opened and dedicated at a ceremony held on October 26.

The Lighthouse Library contains a circulating collection of braille and large-type editions, talking books, and regular inkprint books for children, teenagers, and adults. The reference collection contains valuable items and reference books to be used only in the library. There is also a periodical collection which includes braille and large-type editions, talking books, and regular inkprint editions for both children and adults.

The Museum Collection, donated to The Lighthouse by the late Virginia Morris Pollak, a sculptress, holds many reproductions of well known pieces of sculpture and a number of originals. All of the pieces are displayed so that visitors may pick them up and handle them.

■ Twenty-three blind snack bar operators in the Harrisburg district of the Commonwealth of Pennsylvania Office for the Blind have recently completed a six-week administrative management course held in the district office in Harrisburg. The course—first of its kind for blind operators of snack bars in the state—was sponsored by the Office for the Blind and the U.S. Small Business Administration.

Along with the 23 blind operators, seven other persons, including administrative and business enterprises program staff of the Office for the Blind, completed the course. Dr. Norman M. Yoder, State Commissioner for the Blind, said that the course was well received by the snack bar operators who took it and that similar courses probably would be held in the Office for the Blind's five other districts.

■ The Cincinnati Association for the Blind has recently moved to new headquarters at 2045 Gilbert Avenue, Cincinnati, Ohio 45202. Both the interior and exterior of the new structure have been completely renovated and rearranged to give the Association one of the most modern and efficient plants in the country.

■ William T. Coppage, director of the Virginia Commission for the Visually Handicapped, was named president-elect of the National Council of State Agencies for the Blind at an election held by Council members during the National Rehabilitation Association annual meeting in October. Mr. Coppage will succeed Edward Fitting of Lansing, Michigan following next year's NRA meeting in New Orleans.

Other officers elected were Burt Risley, Austin, Tex., secretary; Joseph Kohn, Newark, N.J., treasurer; and Stanley Harshberger, Jefferson City, Mo., and Dr. Norman M. Yoder, Harrisburg, Pa., board members.

■ Mrs. Marcella C. Goldberg has been appointed to the newly created position of executive director of the Pittsburgh Branch of the Pennsylvania Association for the Blind. Miss Margaret F. Gande, formerly supervisor of the prevention of blindness department, has been appointed to take Mrs. Goldberg's place as director of welfare services. James L. Wrigley continues as director of workshop activities.

Coming Events

January 24-27 Council on Social Work Education, Minneapolis, Minn.

February 8-10 Wills Eye Hospital Annual Clinical Conference, Philadelphia, Pa.

February 17-21 American Association of School Administrators, Atlantic City, N.J.

March 24-27 National Rehabilitation Association, Region III Convention, Washington, D.C.

April 14-20 Council for Exceptional Children, New York, N.Y.

May 23-25 4th International Congress of Ultrasonography in Ophthalmology, Philadelphia, Pa.

May 26-31 National Conference on Social Welfare, 95th Annual Forum, San Francisco, Calif.

May 27-29 National Rehabilitation Association, Region II Convention, New York, N.Y.

June 23-27 American Association of Instructors of the Blind, 49th Biennial Conference, Toronto, Ont., Can.

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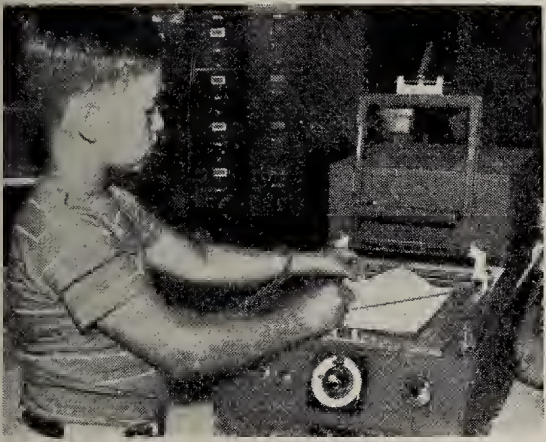

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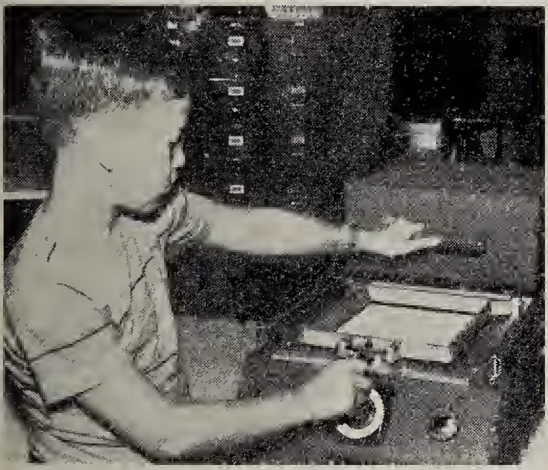

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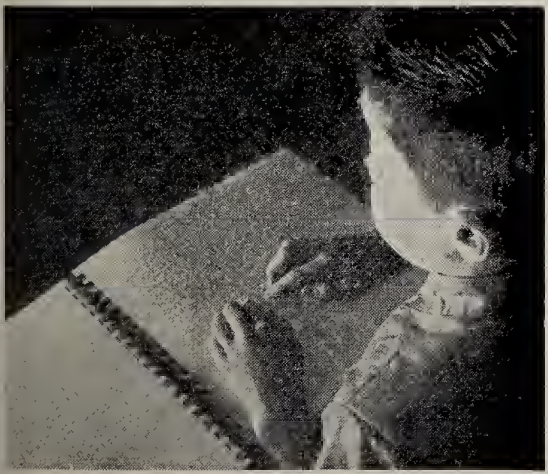

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OR THE BLIND

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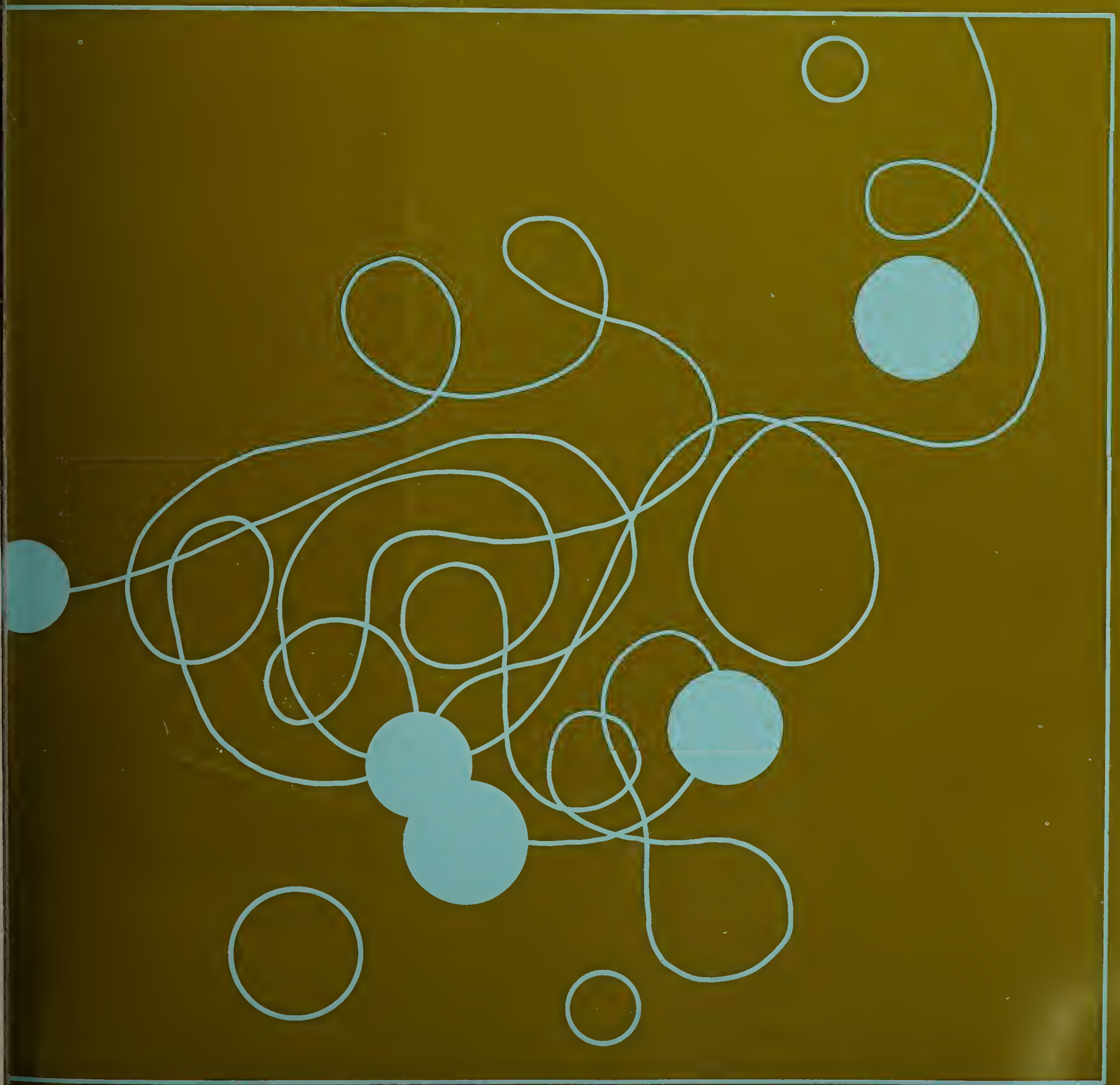

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Selling—Another Role for the Placement Counselor

CLAUDE I. SHELL

Mr. Shell is head of the department of management at Eastern Michigan University, Ypsilanti.

A rehabilitation counselor has been defined as one who advises, recommends, gives information, and in other ways assists the individual client to reach his potential maximum physically, socially, psychologically, and vocationally. For some, this is quite appropriate. However, for the rehabilitation counselors who place the blind or other severely disabled in competitive occupations (i.e., occupations other than the professions and self-employment), counselling or advising alone is no longer adequate; there must be more—a great deal more.

Selling can be professional

These people must sell. They must become salesmen in addition to being counselors, or, in other words they must be counselor-salesmen. They must sell professionally on the very highest plane, but they must sell. The word "sell" has unpleasant connotations for many, and often they feel that such activity is beneath their professional level. Actually selling is an extremely broad field and may be done professionally or unprofessionally, ethically or unethically, legally or illegally. It ranges from the highest level of professional activity to the other extreme. The counselor obviously must maintain the highest standard of professional ethics, but he still must sell, a situation which need not be ambivalent. Stripped to essentials, the word "sell" simply means to convince or persuade. It means that one person succeeds in convincing another person that a product should be used, that a service should be purchased, or that an idea should be accepted. The counselor placing visually handicapped people in industry must convince others that these handicapped people can successfully assume their role in industry.

Three Steps in Selling Process

☐ There are three steps in this selling process for the successful counselor. First, he must sell himself. On the surface this statement appears unnecessary because it would appear obvious that he must already be convinced of the soundness of the concept that the blind can be successful employees. Such assumptions are unwarranted and dangerous. There are people in placement of the visually handicapped who are not themselves convinced that their clients can hold their own in competition with the sighted without being a drag on the employer. Such a person cannot succeed in the placement process. A second step is the selling of the client, the handicapped person. This person must be convinced that he can perform competitively in the world of work if he is going to succeed. This is no mean task and it may require all of the professional skill of the counselor. Next, the counselor, or "salesman" by this time, must sell the employer the concept that a visually handicapped person can perform in industry without being a burden on his employer. This step involves selling of the concept that the blind are employable, not that one particular blind person is suitable for one specific job. In accomplishing this, heavy reliance can be placed on the regular sales techniques, with certain necessary modifications, that are used to train salesmen in business and industry.

Selling oneself

For example, the counselor-salesman must begin by recognizing that he has certain abilities and that he also has certain limitations. He should constantly strive to utilize these abilities to the utmost while still living within his limitations, until the limitations can be overcome. For example, some people are quite adept at the art of effective storytelling, which can be quite an asset when dealing with people. However, others invariably muff the punch line with disastrous results. Obviously it is better for the latter group to leave jokes out of their presentation until they have mastered the art to an acceptable degree.

Success in selling is due to the skillful putting together of a number of things, some of which are personality characteristics and some of which are a logical sequence of overt actions. It is important to recognize the positions of seller and buyer, especially as the counselor (seller) finds his dealings with the employer (buyer). First, the buyer normally did not ask to see the salesman who has come there on his own initiative. In doing so he is disrupting a pattern of behavior of the buyer and he must prove that not only is this interruption justified from the buyer's viewpoint, but that the buyer should accept the course of action proposed by the seller. This means that the seller must have the initiative if he is to accomplish his goal. He must be the one to move the ball from point A to point B. This means further that he needs to develop those skills and traits that aid in this process and to discard those that hinder him. Such skills and traits may be classified as "positive" or "negative," with the positive ones those that help and the negative ones those that hinder or distract. For example, when the counselor and employer first meet, impressions will be formed, based, in part, on appearance of clothing, physical characteristics, voice, poise, handshake, etc. If these are positive or favorable, they help in getting the interview off to a good start; if negative or unfavorable, they make it more difficult. If a person is suitably dressed for the occasion, he blends in with the surroundings and his appearance has served as the vehicle for which it was intended; if he is not appropriately attired, this constitutes a distraction which proves to be a barrier to getting his message across. An additional point in this vein is related to the fact that the counselor has approached the employer and must present himself as this particular businessman desires if he is to succeed with this individual.

Selling the client

A salesman must know that which he sells. He cannot develop buyer confidence, he cannot meet conditions that arise, he cannot persuade others of things which he does not know himself. He must know his agency history, its policies and procedures, and how past conditions have been met. He must be able to talk the language of the employer on whom he calls. He must have some understanding of the problems faced by this businessman and which might be affected if the visually handicapped person is hired as the counselor proposes. He must have some knowledge of production methods and processes if he is going to place people on such jobs in manufacturing plants.

Selling the buyer

Before the selling process can begin, there must be possible buyers, or prospects. The process of obtaining names on whom the seller can call, and an elementary examination of them with the purpose of discarding those obviously not suitable, is called prospecting. Prospecting should be a continuous process, and is accomplished by asking for names during sales interviews, by constant observation of developments such as new plants, expansions, etc., and by knowing knowledgeable and influential people who will relay information. A salesman should continually examine his prospect list and set priorities so that he will spend his time on the most promising ones.

Selling Process Has Five Parts

☐ The actual job of selling is often broken into five parts: the preapproach, the approach, the presentation, the meeting of objections raised by the buyer, and the close. It is the writer's observation that the two most difficult of these for the inexperienced are the approach and the close.

The preapproach

The preapproach may be compared to the military "G-2" or military intelligence. This is the stage in which the seller obtains information concerning the buyer on whom he plans to call and uses this information to plan his presentation. Ideally, he should get information on every point concerning the prospect that will have a bearing on how the prospect will react to the sale. This may not prove feasible, but it is still the ideal. The seller must have detailed information on the company, and he should have it on the individual or individuals on whom he calls. A difficulty that often arises in the latter case is that he may wind up talking to someone other than the one or ones preapproached. There are many good sources of company information with which the counselor should become thoroughly familiar, including his agency records, employment office, chamber of commerce, city, telephone and manufacturers' directories, *Moody's Industrials, Thomas Register,* and civic and service clubs, news media, bankers, accountants, etc.

The approach

The approach starts the interview, and simply serves the purpose of getting it going properly. It should be recognized that there may be a somewhat strained air, especially if this employer is not familiar with working with the visually handicapped, and it is necessary to relieve this tension and set the stage for the seller to make his presentation. The approach may be very brief, and probably should be straight-forward and businesslike. Time is valuable and should not be wasted with an unnecessary amount of small talk. If the counselor walks into the interview without having carefully planned it, he is likely to flounder and fall back on some meaningless comment about an everyday topic such as the weather. To avoid this the preapproach information should be used and the approach thoroughly thought out so there will be no slip. The counselor should know exactly what he intends to say before meeting the employer. This is a vital part of the interview and sets the tone for the entire session. If it gets off to a good start, the sale is well on the way, but if the interview gets off to a poor start it will be difficult to make the presentation a successful one. Extreme care should be given to the approach.

The presentation

The presentation is the part of the interview where the actual persuasion takes place, by convincing the prospect that the course of action outlined is a logical one for him to take and that he will benefit accordingly. To succeed, the salesman must get the buyer's confidence, he must have a message which is logical and convincing, and he must communicate it to the buyer in language the buyer understands. He should scrupulously avoid all "lingo" such as "total," "partial," "travel vision," etc. that may be useful among counselors but which would not only be misunderstood by the buyer but which would also create negative connotations in his mind. A seller would not dream of making his presentation in French to a non-French speaking person; some words in the English language are equally incomprehensible to persons not familiar with them. An extremely helpful device in the presentation is a simple collection of clear pictures showing visually handicapped people performing jobs comparable to the ones in the prospect's plant. These can be most helpful, but they should be local situations which could be readily verified if the buyer chose to do so. The degree of effectiveness varies inversely with distance. The presentation should be made with the individual buyer in mind, as one appropriate for one employer might not be suitable for another. The counselor should know in advance the points he wants to cover and work from mental notes in this manner.

Meeting the objections of the buyer

Using preapproach information, the counselor should plan carefully the presentation for the individual employer. This would include what he wants to cover, how it should be done, and how extensively it should be done. Needless to say, this will vary from case to case, and the key is to have the right one at the right time. As the presentation proceeds, employers will refer to items which they do not understand or to which they do not agree. These are called "objections" but actually are merely indications of the businessman's thinking and reveal the job that remains to be done by the counselor. If one point was not covered sufficiently, it must be done to the satisfaction of the buyer or the "sale" will not be made. It is possible that the point was not made properly by the salesman, that the buyer let his attention wander, or that this prospect has slower mental processes than some; the reason is immaterial, the point must be made. In some cases, there will be preconceived notions that must be dispelled; in others it is simply necessary to place positive information where none existed before. In either event, it is a matter of obtaining agreement of the prospect with the salesman's point of view.

Reaching of agreement

All the effort expended in planning and carrying out the sale rides on the crucial point of "asking for the order," or getting the employer to agree and take appropriate action. This usually consists of obtaining the employer's agreement to hire a qualified visually handicapped person if a suitable job can be discovered through a plant survey. The next step will be the placing of a client on a job which, during a plant survey, the counselor has demonstrated can be performed efficiently and safely without vision. If the request for the "order," or plant tour, is not made, all is lost. On the other hand this request should not be made until the prospect appears convinced that granting such is the proper thing for him to do. In other words, it is necessary that an agreement be reached on the concept of employability of the blind. Reaching such agreement is, therefore, a combination of skillful preparation, appropriate presentation, and proper timing for success. The accomplishment of these things requires skill and experience. However, the inexperienced should recognize that the buyer who permits him to make a presentation has tacitly agreed to consider this proposal and, quite conceivably, to accept it if it appears to be the logical course of action. In other words, he has gone into this interview with his eyes open and both buyer and seller should take the approach that the only logical conclusion to a good presentation is a successful close. If it does not result in such, something was not properly done or something went awry. Obviously such will happen on occasion, but the point is, the close should not be an unnatural part of the whole interview situation.

Salesman must be a persuader

A salesman is a persuader. He is one who knows of something that another should know about, and it is his job to make this knowledge known in such a way as to convince the second person that he should accept the product, service, or concept in question. To do this, he must know his subject, or product, he must understand how to interpret this product in terms appropriate to the individual buyer, and he must plan and execute the presentation properly. He should make use of helpful devices and seek to eliminate those that hold him back. He must communicate properly. But, above all, the burden of proof is on him and it is his responsibility to get the job done. Success is easily measured and the rewards for it are outstanding when the blind or visually impaired person becomes a productive member of society and the work force.

STIPENDS FOR TEACHERS, SUMMER 1968

A limited number of stipends of $200 each will be made available by the American Foundation for the Blind to qualified educators of blind and visually-handicapped children who enroll in certain summer courses and workshops during the summer of 1968.

Applicants must be administrators, supervisors, or teachers who will be employed full-time in educational programs for blind and visually-handicapped students for the 1968-69 academic year. The deadline for receipt of completed applications is May 1, 1968. For further information and an application form, write to:

Mr. William Feldman, Director, Personnel and Training Service
American Foundation for the Blind
15 West 16th Street, New York, New York 10011.

Selective Competitive Placement of Two Deaf-Blind Persons in the New York Metropolitan Area

ROBERT J. PRAUSE

Mr. Prause is a placement specialist for the Industrial Home for the Blind, Brooklyn, New York.

This paper deals with the selective competitive placement of two deaf-blind persons in the New York metropolitan area. It is not concerned with the social or psychological history of the two individuals but with their employment as it actually happened—the steps involved and the considerations and techniques employed.

The male client is Mr. W. who lost his sight through retinitis pigmentosa, but has light perception. He is also totally deaf. The female client, Miss I., is totally deaf but has some usable vision. She has congenital glaucoma, giving her hand movement in the right eye and 20/200 in the left eye with correction.

In both cases the employers contacted the writer at the Industrial Home for the Blind seeking a "trained blind person." They both had previous experience with blind persons in their employ and were seeking blind persons to fill existing positions. Neither employer, however, had ever thought of or considered hiring a deaf-blind person.

The positions which were eventually to be filled by Mr. W. and Miss I. can be described briefly as follows: Mr. W.'s job involves production work, operating a machine in a manufacturing setting; Miss I.'s position is in a hospital laundry where she sorts, shakes, and folds clothing and sheets.

The Approach

☐ As mentioned earlier, the requests were made for the writer to survey two jobs for the possible placement of two blind people. In approaching the employer, regardless of the request, the possibility of placing a deaf-blind person in the job should always be kept in mind. Of course, many agencies do not serve deaf-blind persons, but at the Industrial Home for the Blind we have deaf-blind persons receiving service, and any job survey is made with these clients in mind.

The plant manager who hired Mr. W. had previous experience with blind people during World War II. He informed me that he was aware of their capabilities and felt that this job could be done by a trained blind person. I informed the manager that it was our policy, if at all possible, to make a job survey in order to determine performability by a trained blind person. There was no mention of hiring a deaf-blind person at this time. The manager agreed and we proceeded into the plant accompanied by the general foreman and the section foreman.

The Job Survey

☐ Throughout the years in the rehabilitation process it has been pointed out that the job survey and job demonstration are two of the most important

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This paper was originally prepared for and delivered at the 1967 convention of the American Association of Workers for the Blind in Miami Beach, Fla.

factors in placement. In the placement of a deaf-blind person the latter is of the utmost importance. For illustrative purposes, let us say, that a job that can be done by a trained blind person can be done by a trained deaf-blind person. The question then is what additional factors are to be considered concerning the placement of a deaf-blind person.

In surveying the job, it was observed that the materials were brought to the work table; no visual inspection was needed, and the job was one that required the worker to sit. It was further observed that sound was not a factor in the operation and the machine used in the performance of the operation was located in an area that had a wooden floor which gave off vibrations when the machine was in motion. Interaction of employees was not necessary to perform this job, hence, conversation was not important.

After these observations, the plant manager was advised that the job could be done by a trained blind person. He agreed and we returned to the office of the plant manager to discuss the particulars of employment, i.e., salary, working hours, and union involvement.

The re-approach

In the manager's office, we discussed the idea of a deaf-blind person for the job. I like to consider this step the *re-approach*. It is important in approaching the employer about the possibility of hiring a deaf-blind person, just as with a blind person, to be as direct and positive as possible. It cannot be done in a mild, bashful, or apologetic manner. If the placement specialist himself sounds doubtful about such an idea, the employer is going to be twice as doubtful about its feasibility. In this case, the "direct approach" was used in the "re-approach." The manager was told that not only could this job be done by a trained blind person, but that it could be done by a trained deaf-blind person as well. When discussing the placement of a deaf-blind person, one must be prepared to answer all questions and objections, particularly that one question; "a what?" The manager was told that a trained blind person who also happens to be deaf can do the job. I began to "re-sell", pointing out the strong points, hoping to get them across to the employer which would result in a placement opportunity. It was important to point out to the manager the reasons for thinking this job was feasible for a deaf-blind person. Such things as the wooden floor which gave off vibrations that would enable a deaf-blind person to determine if the machine is at rest or in motion; the fact that the output of the machine does not depend on sound; the interaction of other employees is not necessary for success on the job.

Arguing strong points

In placing Miss I., the situation was somewhat different from that described above. We had previously placed a blind woman in the hospital laundry. Her performance was satisfactory, and when another opening in the laundry presented itself, the laundry supervisor advised the personnel manager to contact IHB.

The *"re-approach"* was made directly to the personnel manager. The IHB policy of placing only one blind person in any particular work area was explained to him. However, he was immediately presented with the proposal of employing a blind woman who happened to be deaf. The personnel manager, convinced of the feasibility of such a placement, indicated that he would approve such a proposal if the laundry supervisor would agree with the idea. After speaking with the laundry supervisor, she agreed to cooperate in the placement.

In both situations, with Mr. W. and now with Miss I., the managers agreed to give the job opportunity to these deaf-blind people. However, we had the impression that not until they actually saw deaf-blind people working, and working well, would they be convinced that it could be done.

Although we were aware of the positive work performance of deaf-blind persons in IHB industries, we too were apprehensive about their performance in these competitive though selective jobs.

Placing a Deaf-Blind Person—Factors To Be Considered

☐ In placing a deaf-blind person, there are essentially only a few differences to be considered as compared to placing blind persons. These are communication skills; selection of the client; training on the job; and mobility instruction to and from the job.

Communication skills

Those of us who have worked with deaf-blind people think of communications simply as using the manual alphabet, printing in the palm, printing on paper, or a combination of all three. However, if these forms of communication are mentioned to an employer, he would not have any cognizance of how they really work or how they could be used in his plant. Therefore, one must conduct his own small-scale educational program to demonstrate just how these methods of communication can be used successfully. It may be necessary to print in his hand and ask him to tell you what you have printed. The manual alphabet is more difficult to get across because it means learning something new and to some people it may seem as difficult as learning a foreign language. Regardless of the method used, it is of the utmost importance to sell the prospective employer the idea that communication with a deaf-blind employee *is* possible.

Mr. W. can send and receive the manual alphabet but is limited in his vocabulary, and does not have usable speech. He can also use the print-in-the-palm method. He is very interested in the exact use of the manual alphabet and will take the time to teach anyone who is interested in learning it; while employed in the IHB Workshops, he helped a number of the workshop clients and supervisors to learn and develop the use of the manual alphabet.

IHB instructor goes to plant

After the employment committment was made for Mr. W., we brought one of the instructors from the IHB industries who was responsible for training deaf-blind clients to the plant. To insure complete success, it was felt best to call on whatever experience might be available in the orientation and training of deaf-blind persons. While the orientation and training was going on, we were able to work with the foreman on the manual alphabet and for this we had brought with us printed copies of the manual alphabet.* A number of these were passed out to the people who would be working near Mr. W. and we were able to answer many of their questions regarding the manual alphabet. They were encouraged to take the printed copies home with them and to learn how to say things such as "hello", "good-by", "how are you", etc. They were also encouraged to learn how to spell their names in the manual alphabet so that they could tell Mr. W. who they were.

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* *Guide Lines For the Helper of Deaf-Blind Persons,* Industrial Home for the Blind, 57 Willoughby St., Brooklyn, N.Y. 11201.

Some employees including the general foreman and the division foreman did as suggested. During the follow-up visits, Mr. W. would tell me who certain individuals were and when I asked him to take me to one of them, he had no difficulty in finding the correct person. He knew these individuals because they were the ones who said "hello" to him, worked in his area, and told him where they worked.

Miss I. has some residual vision, can read large print on paper, can use the manual alphabet and the print-in-the-palm method, and has useful speech. Most of the instruction and conversation was carried out by demonstration and print-in-the-palm.

It is interesting to note that we were able to bring to the attention of the hospital supervisor the fact that a fellow employee operating the washing machine was not able to understand or speak English. The supervisor communicated with this employee by pointing, nodding or shaking her head, smiling or frowning, etc. We pointed out that this type of communication could be used just as well with Miss I. because she had enough residual vision to see such gestures.

Miss I., fits well into the laundry setting where she is employed. She is sociable, gregarious, and out-going. She enjoys being the center of attention. She is able to understand her fellow employees in communication and there does not appear to be any problem of social acceptance.

Communication skills have a decided effect on the remaining three steps. If a deaf-blind person has poor communications skills, these remaining steps are difficult, if not impossible.

Selection of the Client for the Job

☐ The selection of the two deaf-blind persons was done in the same manner as we would select a blind candidate for the job. The job demonstration was performed with the thought of placing a *trained blind* person. However, mental notes were taken at that time regarding the feasibility of a *trained deaf-blind* person doing the job.

A check of the records was made to see if the two deaf-blind clients would be able to perform the duties as indicated by the job analysis; could they bend, lift, pull, reach; did they have good bi-manual coordination? One job required the client to be able to sit for a seven hour working day; the other required the client to stand for a seven hour working day. In addition to physical endurance and manual ability, the jobs required reliability, so a check of their attendance records was made. Both Mr. W. and Miss I. were rarely absent or late for work.

There is a major difference that must be considered when placing a deaf-blind person. Many deaf-blind persons, who are congenitally deaf, attempt to express themselves through the use of sounds and often these sounds are such that they frighten those persons who are not accustomed to them. Therefore, in preparing a deaf-blind person who makes unintelligible sounds to register emotions for employment, it is important to understand how such sounds may adversely affect the uninitiated. The deaf-blind person should be able to control such sounds to a degree which will be acceptable to his co-workers.

Mr. W. controls these sounds extremely well. He makes sounds to indicate excitement and he also occasionally makes some slight sounds when conversing in order to express his feelings; but in neither case does this cause a disturbance or annoy his fellow employees.

Miss I. does have understandable speech and is able to use it effectively in communication. However, Miss I. is not able to estimate the volume which she is using when speaking but is able to raise or lower her voice when speaking if she is reminded to do so.

Training on the Job

☐ The one major difference between the orientation and training of a skilled deaf-blind person on the job as opposed to the orientation and training of a skilled blind person is the difference in communication. The better the deaf-blind person's communication skills, the quicker and more thorough and more understandable his orientation and training on the job will be. It must be anticipated that orientation and training on the job will take longer than one might expect because of the slowness of manual communication as opposed to verbal communication.

Mr. W. was shown his job with his hands on the instructor's hands while the latter went through the operations required. Each step and the parts of the machine were explained to him by use of the manual alphabet and then by allowing him to feel the machine and its parts while it was at rest.

Miss I. has some usable vision; therefore, she learned the job by visual observation and any additional necessary information was printed for her with dark pencil on paper. When she had questions, she was able to voice them since she can speak.

No one way to train deaf-blind

It should not be anticipated that there is any one way to train a deaf-blind person on the job since each client presents an individual situation. In Mr. W.'s case, the personal physical contact between the instructor and Mr. W. was a successful technique just as it often is in training the totally blind person. In Miss I.'s case, the visual demonstration technique, often used when placing a legally blind person, was successful.

Mobility to and from the Job

☐ After we secured the commitment for the placement of Mr. W., a mobility instructor was assigned to survey the route between Mr. W.'s home and his new place of employment and to provide Mr. W. with any orientation and training that was indicated in order for him to learn this new route. At the present time, Mr. W. no longer travels independently to and from his job as he is being transported by his wife who has been able to secure employment in the same company. However, we are sure that Mr. W. is able to make this trip independently if necessary.

Miss I. too, is able to make the trip independently to and from the hospital where she is employed and her travel does not appear to be presenting any unanticipated difficulties.

Mobility instructor needed

It should be uppermost in the mind of the placement specialist when placing a deaf-blind person on a new job, that the service of the mobility instructor will be necessary for the orientation and training of the deaf-blind person in the route between his home and the job and the orientation and training required to move about the plant. In the plant orientation, Miss I. could find her way without difficulty. Mr. W. needed assistance in learning to find the time clock, the entrance to the shop, the men's room, and his work area.

Central reference points are important to Mr. W.'s orientation. By using the wall and the transition from the concrete to the wooden floor as reference points, he is able to get to his work area with relative ease. Mr. W. uses the front of his machine as his main orientation point and moves in any direction from this machine. The foreman reported that one day there was a cabinet placed along the wall that Mr. W. follows to get out of his work area. He proceeded as usual and found the cabinet in his way; he felt the cabinet and became somewhat disoriented. He backtracked along the wall and started over again; this time he walked around the cabinet feeling it with his hands and then found the wooden floor, one of his reference points, and walked on towards his destination.

This paper has related our experience with the placement of Mr. W. and Miss I. I hope we have pointed out the differences and similarities between placing these two deaf-blind people and placing those who are *blind.*

Both Employers Satisfied

☐ Since Mr. W.'s placement, we have received a report from his immediate supervisor which tells more about Mr. W.'s performance on the job than anything we might be able to say. This report is written by an objective supervisor whose main purpose is to get the job done and who places this goal above any other goal. According to the supervisor, Mr. W. is much more than satisfactory. I am sure that if I sought a statement from Miss I.'s supervisor, it would be similar to the one I received from Mr. W.'s. The hospital where Miss I. is employed is also evidently more than satisfied since about a month ago they requested and hired another deaf-blind woman.

TRAINING COURSE IN EFFECTIVE LISTENING

The Rehabilitation Services Administration has awarded a $12,000 grant to the Kansas Department of Social Welfare for a training course to develop effective listening in blind people. The course, 17 weeks in length, will have sessions on "verbal listening," which includes understanding and following directions, comprehension of oral instruction, verbal retention, delayed recall, and voice identification.

In announcing the grant, Mary Switzer, the Social and Rehabilitation Service administrator, said, "Obviously a blind person's ears also must serve as his eyes if he is to work alongside others and to make his way in the world. But our knowledge of effective listening never has been distilled into an organized body of knowledge. This is a vital area, because hearing is the blind person's main contact with his environment."

A Community Drama Project

CHESTER T. WILLIAMS

Mr. Williams is director of The Westchester Lighthouse, The New York Association for the Blind.

With ever increasing amounts of leisure time available to most Americans, a greater emphasis is being placed on the value of cultural and creative art as a part of formal recreation programs. Drama is by no means the least of these cultural leisure time pursuits and offers the participants as well as the spectators a myriad of obvious secondary benefits in addition to the joyous fulfillment in acting.

In a collection of interviews with present day actors and actresses, Morris Carnovsky illustrated the point of mutual involvement which leads to total acceptance when he says, "—a relationship established between the actor and the audience so that the audience themselves become actors in the whole event. For me, there is nothing more really shattering and moving than this particular experience. — One, the actor has to learn to look at people, to connect with people, to find a humanity in people so that they will bring out the answering humanity in you." (1)

In the same collection, Sidney Poitier refers to the secondary values for the thespians when he says, "if you are unable to control the body or the mind under certain work situations, then you'll find that you will never be able to play any part completely. The only tool you have is the body, how you move, how you speak, everything you do with the body becomes the essence of your work. Aside from learning the other aspects of acting, controlling the body is the most important." (2)

Objectives of Westchester Lighthouse Recreation Program

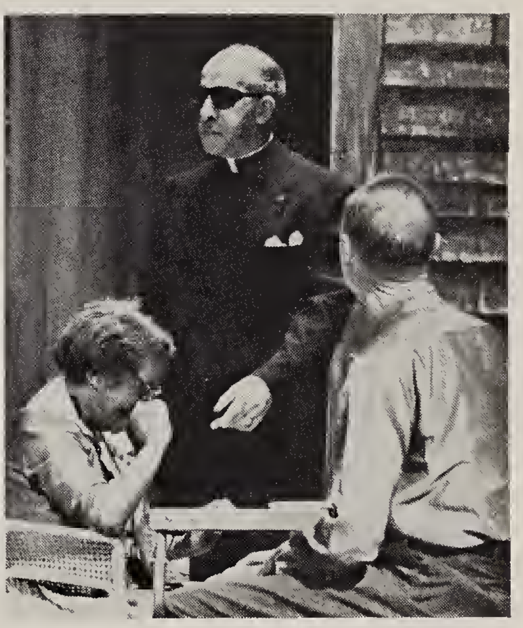
☐ Conforming to the standards set forth by the Commission on Standards for Accrediting Agencies for the Blind, the recreation program of the Westchester Lighthouse offers a variety of activities and drama has been one of the more popular. The three-fold objectives of the Lighthouse recreation program are: to assist the blind or visually handicapped continue those leisure time pursuits engaged in before the onset of the handicap; to provide a sheltered setting through a segregated program to help a person to build up tolerance for participation in a sighted community program; or three, to provide a continuing sheltered program for those persons who because of habit, past experience, lack of community resources or acceptance, or other limitations require a continued sheltered program to help meet their leisure time needs. The prime over-all objective of the Westchester Lighthouse is to provide services to help the blind or visually handicapped individual obtain optimum physical, social, and emotional well being. Therefore, the closer the recreation program relates to the mainstream of community living, the closer the Westchester Lighthouse is in achieving its stated objectives.

The drama group was originally for the blind or visually handicapped person active in the Westchester Lighthouse recreation program. Clients taking part in the recreation program selected drama as an activity they would like to engage in and were assigned to this weekly program. The stage and auditorium of a local church was used, and volunteers, under the overall direction of the Lighthouse recreation director, Miss Carol Derby, assisted with the program and transportation. Following five or six months of weekly rehearsals, the completed play was presented to those clients attending the all-county entertainment meeting of the Westchester Lighthouse, and the play was then shown to sighted groups—churches, clubs, little theater groups, etc.

First attempts to establish integrated project unsuccessful

In observing these presentations to sighted little theater groups, attempts to have actors from the Westchester Lighthouse program participate in local, sighted drama clubs were completely unsuccessful. Both the recreation director and the volunteer director of the Westchester Lighthouse made appointments for some of the Lighthouse players to try out for parts, or even to join drama clubs as helpers but the results of these efforts were always unsuccessful.

During the summer of 1966, discussions about having sighted persons participate in the Westchester Lighthouse program were held with the recreation director and the volunteer chairman of the drama group. It was agreed that every effort would be made to recruit sighted members from the general community to participate in a drama program consisting of both sighted and blind actors. The group was given as identity of its own, the "Spotlight Players," without specifically identifying the relationship of the program to the Westchester Lighthouse.



The biggest problem in recruitment was the time factor since the transportation system of the Westchester Lighthouse and the volunteer service was available only on Monday mornings so rehearsals had to be set for that time. Miss Derby, the recreation director, contacted seventy-four community organizations from all parts of the county including senior citizens, church groups, theater groups, recreation commissions, women's clubs, etc.

The program was presented to the sighted groups as an opportunity to read for an amateur production. No mention was made of the overall objectives. Twenty sighted persons, each representing a different organization contacted, came for the tryouts. Interestingly enough, some of the sighted were unable to accept parts because they could not arrange their own transportation. In addition to the problem of morning rehearsal and transportation, the sighted person was presented with the need to rehearse for six or seven months. The usual rehearsal time for such a production is six to eight weeks.

Selection of Participants

☐ The play selected, "Mr. Barry's Etchings" had seventeen parts, and it was agreed that in order to reach the overall objective at least half the persons participating should be sighted. This meant that a number of the blind and visually handicapped persons trying out for the play would not be selected for parts. Comments were heard to the effect that the Westchester Lighthouse had used sighted actors because the agency did not want the extra trouble of making braille and large type scripts, and recordings for the parts of the totally blind. Of the twenty blind who tried out, eight were accepted. Other things being equal, selections of the blind or visually handicapped persons were made where histories indicated that the client had little or no other outside leisure time pursuits, and especially in cases where it was felt that acting would have therapeutic value. The final casting included eight sighted players from eight different community organizations, and seven blind or visually handicapped players from the Westchester Lighthouse—three were totally blind, one had light perception, and three had some usable vision.

Other Lighthouse recreation participants helped backstage

In order to maintain the format of a community theater, a call went out to Westchester Lighthouse recreation participants to help with props, clothing, sets, and so forth. One client with some vision assumed full responsibility for stage management.

Rehearsal period

Rehearsals began on Monday mornings in October. It was the opinion of volunteers who had been in previous productions as well as the recreation director that the presence of sighted players from other groups stimulated the blind and visually handicapped participants to greater efforts in acting, mobility, and memorizing lines. As rehearsals progessed, there was a gradual merging of the two groups which resulted in a joint concern for the production. During rehearsals, participants were busy on stage most of the time so there was little chance to socialize or informally bridge the gap between the sighted and blind participants. To overcome this, the blind and visually handicapped people were encouraged to act as hosts and hostesses at sandwich and coffee time following the morning's work. This was a big help in getting the group acquainted with one another. The skills and techniques the recreation director had learned from previous productions with visually handicapped persons were invaluable in her supervision of the volunteer drama director.

Performances

☐ The first performance was presented to clients of the Westchester Lighthouse active in the recreation program. The same church where rehearsals had been held was used. The second showing was for a little theater group in northern Westchester where stage conditions were other than ideal. However, with this added handicap, the group really came through and functioned for the first time as a team. The third performance was given in a much larger auditorium which also required many adjustments and added to the unity of the group.

Audience reaction

While it is difficult to determine the audience reaction from three separate performances, it can be assumed that the image carried away was not one of a blind group functioning as such because the play was presented as a little theater production and no mention was made of the blind or visually handicapped participants. In addition to the identifiable positive results from this integrated drama program which will be referred to later, some very interesting comments and observations were made by those working in the group. In an attempt to evaluate the program following the last production, meetings were held with the sighted members of the cast, with the backstage volunteers, and with the blind and visually handicapped participants.

Sighted Participants Received No Orientation

☐ Since a completely controlled environment would make adjustments to a sighted community drama group more difficult, the sighted participants had received no orientation. In other words, the sighted players did not receive any special training or knowledge and were therefore functioning with the same ideas, concepts, and prejudices concerning blind persons that they would have if they were performing for their own local drama group. The frank and candid remarks made by these people concerning their ideas and attitudes, and how these attitudes and ideas were changed through a group project of this nature, were most revealing. The sighted actors and actresses stated that the reason they had participated in this program was to act. They were not primarily moved by altruism or a feeling of community responsibility. However, as a result of this program an awareness of community responsibility has been awakened and they would now be more apt to participate in projects.

Reactions of the sighted participants

The sighted actors and actresses further stated that their initial reactions to the blind actors was that they were probably not only blind but retarded as well and "needed to be led around like children." As the drama sessions continued, these attitudes were rapidly changed and replaced by ones of complete acceptance and knowledge that the blind and visually handicapped participants were indeed individuals with some of the same problems, shortcomings, fears, needs, and desires of "us all." They further stated that "the act and react situation" involved in drama became a greater challenge to the sighted actor since visual rapport was not possible and a true acting response had to be obtained. They all concurred that the blind or visually handicapped thespian could participate in sighted local theater groups. This conviction, they stated, had only resulted from their active role in this program.

The comments of the sighted volunteers who worked back-stage were not greatly different from those of the sighted actors and actresses. Like the sighted actors and actresses, this group of volunteers felt that there is also a prejudice in reverse involved—that the blind persons should overcome their own bias against sighted persons. Blind and visually handicapped people should accept the sighted community if they expect the sighted community to accept them.

Reactions of the blind and visually handicapped participants

Comments from the blind and visually handicapped actors and actresses varied. Shortly after the production got under way, two of the actresses commented that they thought the Lighthouse was expecting too much in asking them to compete with sighted groups. However, at the same time, they thought they were holding their own and did feel this joint participation provided greater motivation for them to excel. Originally, the blind actors thought they were not as proficient in learning their lines as they actually were. They were later surprised and pleased to learn that the sighted actors were still reading from scripts. As a result, many of their fears were dissipated so that an experience of pride in achievement soon became evident.

One of the totally blind participants stated that contacts with the wide variety of people in the play offered her the greatest enjoyment. She stated she would like to come even if her part was not in rehearsal, just to have this kind of contact.

Another blind actress stated that it had been a great deal of fun and while it was easier and more comfortable to work in a segregated setting with blind persons, new people are more stimulating both to the cast and to the audience.

Program Had Several Positive Results

☐ In addition to the joys and fun of acting, other positive results of this program are obvious. A noticeable start toward gaining acceptance in the community has been made. Two of the visually handicapped players who participated in this group are now acting in sighted little theatre groups within their own community. Three others are trying out for parts in another local sighted drama group. These accomplishments are the direct result of this program because the sighted actors, actresses, and crew were instrumental in bringing these people into their own local groups.

The sighted cast and crew are now articulate, informed, and convinced spokesmen for the blind and visually handicapped person. The concepts expressed by the sighted members of this production are the concepts necessary to achieve community acceptance. It was only through this joint endeavor that previous ideas were changed.

Local and county recreation commissions assisted

Both the local recreation commission and the county recreation commission assisted with logistics connected with the production and members from both departments were present at the shows. A letter has been sent to the county recreation commission urging the commission to add a member to the staff who would be responsible for helping local sighted drama groups become organized and operational. This would provide additional local resources for the blind and visually handicapped residents, as well as other handicapped groups.

The Westchester Lighthouse will continue this kind of community production within its own recreation department as long as a need exists. In doing so, the Westchester Lighthouse is further meeting its obligation of helping the community understand its responsibility to establish programs and services required by all citizens. The "Spotlight Players" represent a real and practical approach to furthering enjoyment of the arts and breaking down undesirable, unnecessary, and detrimental prejudices towards persons with visual defects.

To borrow the John Galsworthy quotation from Mary Switzer's recent article, "Art is the one form of human energy in the whole world which really works for union and destroys the barriers between man and man. It is the real cement of human life; the everlasting refreshment and renewal." (3)

1. *Actors Talk About Acting,* Lewis Funk and J. E. Booth, pp 257-293, New York, 1962.
2. *Actors Talk About Acting,* pp 371-394.
3. "The Enjoyment of the Arts," *Blindness 1967,* American Association of Workers for the Blind Annual, Washington 1967.

Casting A Blind Student In A High School Play

PAUL D. WARE

Mr. Ware teaches drama and English at El Camino High School, Sacramento, California.

"On opening night, I guess I was so nervous that I felt what the audience was observing. They could see where I was going, what I was going to do—that I was going to get the teapot. I could tell where I was supposed to go because they were watching me. It was weird."

Excited and happy, LuRetta Bunge, age 16, thus described her opening night experience as Miet in *The Diary of Anne Frank* at El Camino High School, Sacramento, California. LuRetta was happy about her success in the play and elated because she was, perhaps, one of the first blind high school students to perform with sighted students—accepted as just another member of the cast.

Lonnie Thompson, who portrayed Mr. Frank, didn't think LuRetta could do it, at first. "I thought with the short time we had to rehearse, we would not be able to do an adequate job. But LuRetta is very intelligent. She picked things up fast and learned where to go."

The director was glad he gambled on LuRetta. Every member of the cast was pulling for her. The result—sold out houses and standing ovations. The cast worked as a team to help LuRetta. Greg Popejoy, who played Mr. Van Daan, explained, "If anybody happened to be standing by her and she was not in the right position, or if she was blocking someone, he or she helped her out."

Lonnie Thompson mentioned that, "When a prop girl forgot to put a prop in the right place LuRetta had no way of knowing, so she would go ahead with her line." The other actors ad libbed to let her know what was missing, and helped her with movement so that the mistake would go unnoticed."

A number of signals were worked out so that LuRetta would know where each actor was on stage. These signals were especially helpful when she had to follow action with her eyes. After the show, it was discovered that there were some secret signals even the director did not know.

Entrances and exits through the four-foot high main door could have been a problem for LuRetta, but Bob Callaghan said she never missed ducking. "She knew exactly where everything was. "I would just say 'You ready now?', and she would say 'O.K.', and we would go on. Usually, I went on first and she put her hand on my back and followed."

When asked for her reactions to acting with sighted students, LuRetta said, "I'd always wanted to act, but I didn't think I could do it. When this show came up, I thought I would take a chance, mostly because my parents and friends encouraged me. The first day of tryouts I only listened. I gave a print copy of the script to the braillist, to braile the parts of script that contained my lines and cues. The second day of tryouts I came and stumbled through my lines, the same as everyone else did! But, within a few days, I'd memorized where I came in and I began to tangle with my main problem of getting my voice out.

"I didn't have any major problems when we were rehearsing, except I wasn't familiar with the set. I went around between rehearsals to find out where everything was so I wouldn't trip and fall. The main obstacle as far as getting around on stage was in my last scene—with Mr. Frank, Mr. Kraler, and me. We were sitting at the table and I had to get up, find the teapot, and give Mr. Frank a cup of tea. I arranged to have my chair in the same position every time, and from there I knew in what direction the stove was. I would go, more or less in the right direction, and usually hit the cupboard instead of the stove. But, as soon as I got hold of the teapot, I was alright. Mr. Frank was talking; I headed for his voice, poured the tea, and returned the pot."

After the show, Greg Popejoy spoke for hundreds of students throughout the school when he said, "She was like any other cast member. At the end of every performance, you know, with the hugging and the jubilation, she was just as much a part of it as anyone else. She performed excellently and got many compliments—and she deserved them."

The Use of Supervision

MILDRED F. STERN, ACSW

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As a practitioner and supervisor, my experience has been in the field of social service. In reviewing my knowledge and experience, as one who has utilized supervision and as one who has supervised students, beginning workers, and those with much skill, ability, and experience, I have tried to assess that which might be appropriate and useful to those of you involved in other helping professions. It is my conviction that the underlying concepts of supervision and ways in which the supervisee utilizes supervision is germane, for the most part to those professions which are concerned with service to blind persons.

The Supervisory Process

☐ Let us, first of all, identify the various components of the supervisory process and examine it in light of its historical background. Secondly, we shall focus on the worker and his utilization of the learning process.

Supervision is a complex operation. Social work is a relatively new profession as compared with nursing, law, medicine, engineering, etc., and yet, it has established educational objectives and standards and a conscious concern with the relationship between the educational process and the development of the learner as a professional person. Supervision plays an important role, starting with field work instruction, and continuing in agencies with good standards for a considerable number of years beyond the school period.

In the early days, supervision was a process whereby one person who was vested with more authority than another, directed and reviewed the latter's work to insure that the letter of an agency's policies and procedures was faithfully carried out. I suspect that in some public agencies, this "checking" still prevails. Social work philosophy has traveled a long road from the concept of "worthiness" as a basis for granting material aid to the concept of "eligibility" for a variety of social services and the journey has been well documented by the historians of our profession.

But, as casework practice in those early days was highly authoritative and moralistic in attitude, so too, was the quality of supervision.

Changes in philosophy of supervision

The years passed, and the importance of understanding the emotional and social meaning of factual data in clients' lives became an integrated part of our body of knowledge as did the necessary skills for arriving at such understanding in individual cases. During this period, supervision developed concomitantly, especially with regard to the nature of the learning process, teaching skills, and the supervisor's role as a catalytic agent. Many supervisors for a time became so engrossed in this stimulating experience that they tended to lose sight of some basic reasons for the very existence of supervision. In a pa-

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per written in 1938 one reads: "The function of supervision is entirely an educational one during which growth and change in a worker take place, and it exists for this purpose alone."[1] This idea emerged at a time when emphasis upon the inclusion of educational and human elements in supervision was sometimes inevitably—indeed necessarily—exaggerated in an effort to establish their validity. Today, however, the growth of the worker although important, is not, in itself, viewed as a final objective. The contribution of the supervisory process to the nurturing of growth is an objective but not an end in itself.

Components of Supervisory Process

☐ The supervisory process has usually been divided into two components; *education* and *administration*. Charlotte Towle added a third which she calls "helping" or perhaps *enabling* is a more descriptive word.[2] It means enabling the supervisee to do his work to the very best of his ability, by increasing his own satisfaction from his work as well as benefiting the client and the agency.

Education

Within the educational component of supervision, the supervisor's responsibilities are to impart knowledge to the supervisee so that he will (1) understand the purposes, goals, and philosophy of the agency program; (2) develop understanding of the psychological, social, cultural, and economic factors which affect clients' behavior, and apply his knowledge in his work with clients; (3) carry over learning from one case situation to another, seeing similarities and differences; (4) understand how his own feelings, attitudes, biases, and prejudices may at one time or another interfere with his work.

Administration

Administration has been defined by Berkowitz as an enabling and directing process.[3] In a social agency this means creating favorable conditions for carrying out the agency program, philosophy, and function in relation to service to clients. The teaching and implementing aspects of supervision which enjoy so much prestige are a means to an end; that end being the rendering of services effective in quality and large enough in volume to justify the cost to the community. This means, of course, that one is not only concerned with the quality of work, but quantity as well. It can be argued that all supervisory activities have administrative implications, yet none can be singled out as completely exclusive of educational and psychological considerations. However, in order to facilitate discussion, two important supervisory functions in the administrative aspects seem to be paramount. These are: (1) helping workers relate themselves appropriately to the multiple facets of their jobs, a function which rests on reviewing and evaluating total performance; (2) channeling the volume of work and otherwise serving as interpreter, expediter, and buffer between workers and those pressures and frustrations whose origins may lie in the community or perhaps the agency's administration. In stimulating workers toward increasing some activities and limiting others, the supervisor is in essence acting to fulfill her administrative responsibilities.

Therefore, in reviewing a supervisee's work, a supervisor while evaluating the worker's skill and competence in the helping process might also need to ask questions such as: Does the worker cover his case load in terms of a suitable ratio between quantity and quality, selectively related to the needs of the clients? Is the worker's time apportioned wisely? Is the worker fairly accurate and prompt in submitting reports, statistical and recorded? Does the worker adhere to agency routines, such as dictation, hours of work, schedules, etc.?

In some situations the administrative component of supervision may need more emphasis than educational component, while in others, the educational component may be emphasized more than the administrative component, but both are important.

Enabling

The enabling component of supervision comes about mainly, though not entirely, through the supervisor-worker relationship. This relationship is a composite of many factors, some contributed by the supervisor, some by the worker. It is constantly changing and dependent on each one accepting his role and that of the other. The supervisor needs to accept his role as teacher, enabler, checker, and to accept the authority inherent in it. The worker needs to accept the authority of the supervisor without extreme dependence and loss of initiative. As in all relationships acceptance is a basic factor. Acceptance is mutual. The supervisor accepts the worker as one who has capabilities, who may err sometimes in judgment or performance, but who is sincerely concerned with the well-being of his clients The worker accepts the supervisor as a competent person who has the knowledge, ability, and interest in helping him learn and who has the authority to expect acceptable performance, to make suggestions and, if necessary, correction. The worker should feel the security of acceptance and trust which will not be withdrawn because of occasional errors of judgment in evaluating situations. The supervisor trusts the worker to grow and develop, to be responsible about carrying out assigned work, but he does not expect him to be flawless. The worker trusts the supervisor to give him information as needed and to be genuinely interested in helping him grow and develop, but not necessarily to be all knowing and to have all the answers all the time.

Understanding worker's patterns

The supervisor needs to understand the worker's learning patterns, attitudes, and reactions to new situations because they affect his work. Some persons react to authority figures with subservience and dependence, some with resistance. Some persons in a new situation appear to learn very quickly but do not retain new learning; some start slowly and hesitantly but when they feel the security of adequate knowledge, move ahead with rapidity and confidence. Others appear to resist new learning when they are testing it out before incorporating it. These are a few of the patterns which should be recognized and understood in order to differentiate between learning patterns and learning problems, between conflicts and prejudices which a worker can modify, and personality problems which may prevent success as a worker. Some dependence is inherent in the role of the worker just as some authority is inherent in the role of the supervisor. This comes in part from lack of knowledge, experience and skill, and should diminish as his knowledge, experience and skill increase. A great deal, however, of what happens depends on the supervisor's attitude toward authority and dependency. The supervisor should be able to accept the normal dependency of a new worker but not keep him dependent to gratify his own needs. The worker should be encouraged to function with greater and greater independence so that as he gains in competence, he will continue to grow, develop and mature.

Ambivalence is bound to be present to some degree in the supervisor-worker relationship because of the authority and dependency aspects. The worker may react negatively to the supervisor's authority at times and the supervisor may be annoyed with the worker's immature sense of responsibility. Since individuals learn and work best in a positive climate, it is hoped that positive feelings will predominate.

Worker's Use of Supervision

☐ This leads into a consideration of the worker's use of supervision. As social workers and teachers, we know that human beings actively, and with great strength, often resist the very changes which they say they wish to bring about in themselves and in society. We find these same tendencies in ourselves and we find that the ambivalent wanting and not wanting is a very important aspect of all learning. All of us want to have already learned and resist going through the changes involved in learning. Change may well involve a feeling of failure and loss of identity, even when the individual is highly motivated to change. Old ideas, attitudes, feelings, and ways of doing things persist and a sense of loss may occur in giving them up for the new. If change is to be successfully achieved and until equilibrium is again established, emotional support is necessary. We are all familiar with the increased anxiety aroused in ourselves and others as we try to take on the new in learning, and we need strong identification with the person (the supervisor) who possesses what we are attempting to learn. We do not learn by facts alone, but feelings about the facts and their effects on us pervade the learning.

Supervisor-worker relationship is unique

As supervision is a relationship with one person, a level of self-consciousness is opened up, which is quite unique and different from other one-to-one relationships experienced by the worker. In friendship, and in love, in working, or in social relationships of any sort, there are usually conscious or unconscious questions raised: How dependent will I become upon the other person? How much will I have to give of myself? How possessive will this relationship be? Can I retain my independence? How much do I risk in terms of change in myself? In ordinary relationships, the two people involved work out their own solution dependent on the situation involved. The supervisory relationship is different in that it has structure and limits.

I remember my first field work experience at a family agency in Chicago. It was during the period when some supervisors were quite absorbed in emotional and psychological concepts of behavior. A fellow student, extremely young, eager to learn, but scared to death, brought her client fruit when she made her first home call. The student's version in telling us about her conference with the supervisor was that the supervisor proceeded to "analyze" her and to look for hidden meanings when in reality she brought the fruit in the hopes that the client, who was poor, might enjoy this bit of delicacy. The fear of being "analyzed" permeated the student group and we were all on guard. As I think back on this episode, I'm amused by our reactions. The bringing of fruit had significance and needed to be examined in regard to the professional role of the worker, her need to placate, to buy a relationship, a fear of establishing a meaningful rather than a superficial relationship and no doubt many other speculations if we knew more about the worker's early life experiences, attitudes, etc.

Developing self-awareness about areas of difficulty

Later on, when I was a field work student in a psychiatric setting, I told my supervisor that I was able to obtain a detailed social history in all areas except sex. "The patient wouldn't talk about it." The supervisor seemed surprised at my statement which was given with the inference on my part that the responsibility for failure to talk rested with the patient. She wondered "Why?" All my efforts to elicit an answer from the supervisor failed and I came away from the conference frustrated and somewhat hostile. How dare she think I had failed? "The patient wouldn't talk." I thought about her question, "Why" and it suddenly dawned on me that I was uncomfortable discussing sex and that was why I couldn't elicit any information from the patient to whom I was assigned. I was able to handle this interview with ease as I had developed self-awareness in regard to this particular area of difficulty.

A young worker whom I shall call Mary had lifted herself up by her own bootstraps in acquiring educational opportunities, always appeared compliant, seeking specific answers in specific areas, yet rarely inclined to express her own ideas and feelings. A six month evaluation was due and I tried to elicit an expression from her regarding her performance. She sparred, seemed anxious and uncomfortable, and finally blurted out, "I don't know what you want me to say." I responded with a tinge of exasperation, saying, "I don't know, because I don't know how you feel." She then relaxed, was able to be self-critical, and I soon learned that her previous pattern was based on survival experience, which taught her to give back what people wanted to hear. When she learned that the supervisor was concerned with her feelings about the supervisory relationship, her feelings about her clients and her work performance, she freed herself and began to move forward in personal growth.

Supervision and Home Teachers

☐ These examples could apply to professions other than social work. A home teacher for example, could bring an aid or appliance to the first interview, just as the social worker brought fruit. The aid could have been a necessary teaching device, a need to make a good impression, insecurity regarding ability to form a meaningful relationship, etc. The supervisor helps the worker understand his spontaneous impulses and ways in which the client is affected and offers the worker in supervisory conference discussion the opportunity to express his attitudes, feelings, and plan of action. Through this discussion, a process can be started that can lead to a shift of feelings or a reconsideration of the plan.

In the second example in which I was blocked in eliciting emotionally charged material, a home teacher could easily be involved in a similar situation. For example, a client may consciously ask to be taught braille, the teacher may feel this client should be an apt pupil and yet there is resistance to learning. The teacher needs to understand the meaning of this resistance. Yet, if the teacher's need to succeed is so paramount that hostility is engendered if he doesn't succeed, he will be unable to deal with the resistance and to understand what is impeding the progress.

A bright, competent, articulate home teacher, who relates well to highly motivated, responsive pupils was assigned a case for pre-vocational counseling. The client was a nineteen-year-old, shy, rather apathetic young woman, who had recently moved to a mid-western city from the South. The move up North took place shortly after graduation from a school for the blind. She had received no vocational preparation or training and was totally unprepared for any type of employment. Following one contact, the teacher indicated that the client had no vocational aspirations and could not utilize the services of the agency. As he discussed closing the case in supervisory conference, the teacher began to see that the client, who failed to come up to his expectations, had been failed—that her seeming indifference may have been due to his impatience with her slow response. When he no longer had a closed mind, he was free to try to understand her and think of ways of reaching out in order to establish a meaningful relationship.

In giving you these few examples, and they could be multiplied a hundred fold, it is my conviction that in the positive use of supervision, the worker can and does develop self-awareness. With this insight, he begins to shed his prejudices, judgmental attitudes, over-identification, and subjective reaction. Workers cannot do this without the help of the supervisor.

Conclusion

☐ In closing, I should like to share with you a story, told to me by a friend who was a field work instructor. A colleague of hers was talking informally one day with her and asked, "How do you control a worker?" My friend replied, "I don't know, I never tried."

I hope this suggests to you what it did to me. The worker carries responsibility for his own learning. The educational and administrative aspects of supervision is not intended for control of the worker or the process, but as a guide to realistic goals to be achieved.

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1. Margaret Kauffman, "Supervision of Casework Staffs," reprinted from "The Family in Development of Staff Through Supervision," rev. *New York Family Welfare Association of America*, 1942.
2. Charlotte Towle, "The Role of Supervision in the Union of Cause and Function in Social Work," *Social Service Review*, pp. 396-407, December, 1962.
3. Sidney Berkowitz, "The Administrative Process in Supervision," *Social Casework, Family Service Association of America*, pp. 419-423, December, 1952.

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Hospitals Find New Source of Manpower in Visually Handicapped

JOHN B. RAITHEL AND ARTHUR L. VOORHEES

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☐ The acute manpower shortage in many hospitals is spurring administrators on a relentless search for new sources of personnel, especially at the service and clerical levels, where the shortage is most critical. Hospital administrators in Missouri have discovered one valuable source of personnel among visually handicapped persons. They have learned that individuals who are totally blind or who have seriously restricted vision can be employed in various jobs where normal vision is not essential for satisfactory job performance.

Administrators also have become aware that loss of sight does not affect intellect and that visually handicapped persons can add to their skills. Actually, these persons are much more flexible than most employers seem to realize.

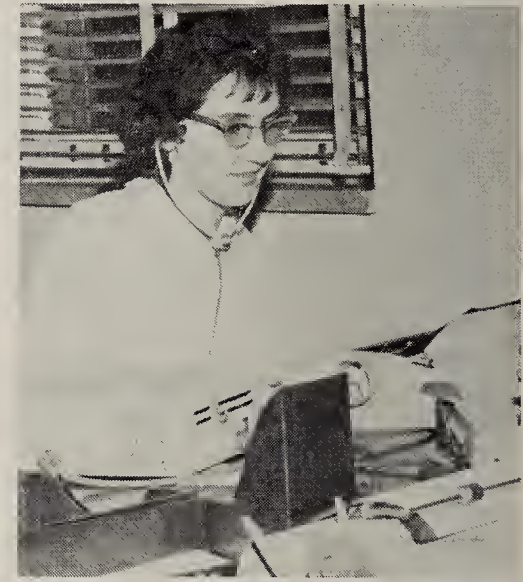
Last year, about fifty such persons were employed in Missouri hospitals in jobs on service, clerical, and professional levels. Fifteen blind persons were working as film developers in x-ray departments; nineteen were employed as medical transcriptionists; and five were employed as aides or orderlies in such areas as central supply, housekeeping, laundry, and direct patient care. In addition, four persons were employed in professional capacities—three in the social work field and one as an executive. Although some of these individuals have enough residual vision to travel alone and to read large print, most of the persons working in film developing and medical transcription are totally blind.

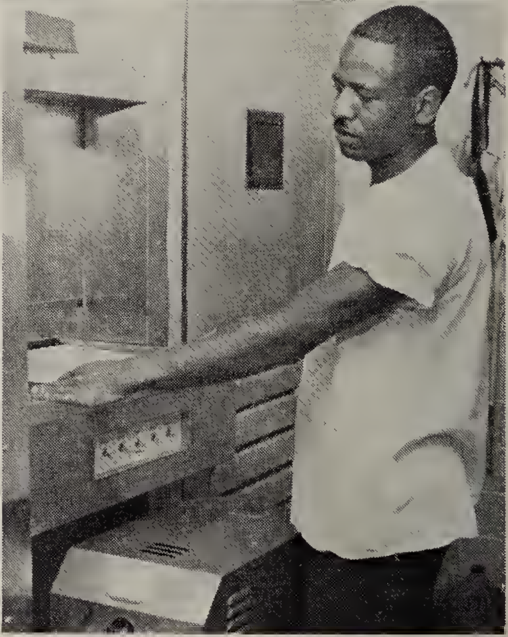
The medical transcriptionist pictured at right is totally blind and is one of three visually handicapped women employed in the transcription department of St. Mary's Hospital, St. Louis. These women received extensive training in typing and medical terminology from the Missouri Division of Welfare, Bureau for the Blind, St. Louis, to qualify them as transcriptionists.

The x-ray film developer pictured at right has restricted vision with both eyes and has been employed in the x-ray film department, St. Anthony's Hospital, St. Louis, for several years. Six totally blind persons also are employed at the Mallinckrodt Institute of Radiology, St. Louis, and many others are employed in hospital x-ray film departments.

The Missouri Employment Services for the Blind has made it a point to contact hospital administrators and supply them with information concerning the availability and work potentials of blind persons. Many local or state employment bureaus also assist in placing blind persons.

With the increasing manpower needs in hospitals, the Missouri Division of Welfare, Bureau for the Blind, plans to continue to place visually handicapped persons in hospitals where there is a need for their services.





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Bicycles Provide Recreation Opportunities For The Blind

RALPH HANNEMAN

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The bicycle built for two had very strong romantic implications in grandma's day. The romance is still there, and increasing . . . and more often than not it's between a blind cyclist and that versatile vehicle.

The tandem's practical application in teaching the blind to develop confidence in themselves while participating in normal physical activity has, to a great extent, brought about its "renaissance" over the past few years.

The Tandem as Physical Therapy

☐ The delights of tandem cycling for the blind are obvious, but it is in the area of physical therapy that the vehicle has come into its own. Authorities agree that the two-seater develops muscular coordination in those who have been blind since their earliest years, and the physical satisfaction accruing to blind riders who provide their own motive power through pedaling, has been cited as restoring the total "well-being" of the individual. Using the tandem, the blind rider in the rear contributes to balancing the two-wheeler, adding another dimension to the riding benefits.

Dr. Paul Dudley White, one of the foremost heart specialists and an avid cyclist, has said: "The bicycle, unlike the motorcar which insulates the occupant from external objects, meets all the needs of a blind person. With a sighted rider at the helm, he can enjoy fully the feeling of cycling, giving his effort in propulsion, and feeling the results. His sensitive hearing, undimmed by vehicle noise, allows him to sense a passing car, a building, a group of children, even stationary objects, reflecting other noises differently. Best of all, he is an equal partner. He needs no cane, no special attention—he takes full part."

The Tandem as Recreation

☐ In Philadelphia, blind riders enjoy tours under the guidance of American Youth Hostelers and the Cycling Enthusiasts of Philadelphia. "We're doing this for fun and for exercise," says Bill McDonald, a member of the group and Executive Secretary of the Montgomery County Association for the Blind. "Our only limits are the number of tandems and front seat captains we can find," he adds, pointing to the *Philadelphia Evening Bulletin* editorial discussing the advantages of tandem cycling for the blind. The editor urged the owners of unneeded two-seaters to turn them over to the cycling organizations for the purposes of guided outings for blind people.

In New Jersey, the Commission For The Blind, Newark, has reported using tandems successfully for fifteen years at its Camp Marcella. The camp's director has been utilizing tandems for nearly thirty years as recreational therapy.

"Many blind children I know own tandems of their own and travel about extensively. Cycling is a wonderful activity and I wish every blind child could own and use a bike," said Miss Josephine Taylor, director of the New Jersey group's educational services.

New York's Vacation Camp for the Blind, which often provides vacations for patients from the city's hospitals, reports excellent therapeutic results using both an exercise bicycle (stationary bike) and a tandem. One blind camper arrived there, barely able to move her legs. Using the standing bicycle to gain leg coordination, the woman was on a bike two weeks after her arrival. The Industrial Home for the Blind in New York reports that tandem cycling increases the patient's exercise potential and helps the blind demonstrate greater independence for other sports.

Two-seaters and standard bikes are provided for 200 campers at Camp Lighthouse, Waretown, N.J., which is operated by The Lighthouse, The New York Association for the Blind. Campers, with a sighted person steering, ride tandems on camp grounds, and go on day-long and overnight camping trips. Partially sighted campers take their bicycles out alone on camp grounds. Last summer, the Lighthouse summer day camp program in Manhattan for younger children included tandem riding in Central Park.

Visually impaired and blind veterans returning from Viet Nam are encouraged to use tandems by the Veterans Administration when it is determined that they will benefit from this kind of activity. Tandems are in use at the V.A. Hospital in Hines, Illinois, and have been used extensively in other rehabilitation programs for veterans who have suffered severe loss of vision.

Other Cycles Being Used

☐ While tandem-riding is considered the easiest and safest cycling activity, other cycle products are also being used. The utilization of standard bicycles by blind individuals riding parallel to sighted companions has been explored by several therapists. Parallel riding is usually done in an open area such as a parking lot or athletic field, with the blind cyclists responding to the commands of the sighted rider. The side-by-side method contributes to the fully independent posture of the blind rider, and calls upon more of his highly developed senses and responses.

Gaining acceptance with both blind and sighted is the adult tricycle, which requires no balancing skills at all. In addition, there are tandem kits—hardware which make it possible to connect two standard bikes side-by-side, or to join two tandems with a standard bicycle—allowing four blind cyclists to pedal along with a fifth, sighted rider.

An interesting application of cycling for the blind was attempted recently by Bill Jenack, an electronics specialist living in Westbury, N.Y. One day, Mr. Jenack and his co-worker Jim Andersen were discussing their favorite lunch hour recreation, riding unicycles in the company parking lot. Dr. John Morrison, a blind engineer who worked with them listened attentively. Dr. Morrison asked Mr. Jenack to ride the unicycle while keeping his eyes closed, which he did successfully.

"Dr. Morrison said he would like to give it a try, too," Mr. Jenack said, "so I brought two unicycles to work and started giving him ten-minute instructions during lunch hour. On the following Saturday, his son drove him over to my house, and we all got on unicycles. Dr. Morrison pedaled up the street with me for a half a block, made a turn, and pedaled back without falling off." By the end of the afternoon he was able to ride for quite a distance on the quiet, residential streets, with his two sons, also on unicycles, riding at his side.

Dr. Morrison, a former professor at and graduate of Notre Dame, learned to ride a bicycle as a child by following large truck ruts on the family farm. He recently transferred to the Electronic Research Center, a branch of NASA in Boston, where, with his new-found unicycling skill, he's trying to convert his co-workers and blind friends to unicycling—"anybody can do it!"

Sarah Hunt, a freshman at Wittenberg University in Ohio, is not looked upon as a curiosity as she gets about the fifty-five acre campus on a tandem, which she's owned for three years. Riding partners do the steering, and that extra seat provides comfortable transportation from one building to another so that Miss Hunt gets many "guide" volunteers.

Bicycling facilities

While cycling for the blind has for years been confined to the grounds of institutions, sports, or parking fields, safe cycling facilities are being developed in parks and on quiet streets. Hundreds of bikeways—little-trafficked secondary streets, well-marked as "safety routes" for bicycles—are being opened, as well as hundreds of miles of bicycle paths and trails in park areas. The availability of these safe nature trails will open up the enjoyment of the out of doors—on wheels—to hundreds of the nation's blind.

When Wisconsin dedicated its border-to-border, 320-mile bikeway recently, it invited an elderly couple from England to participate in the dedicatory ride. The tandem was pedaled by Mrs. Mary Parsons, while her husband, Charles, brought up the rear. The Parsons then completed a cross-country tour of the United States, with Mrs. Parsons guiding and offering a running description of the countryside, while her blind husband provided the muscle power.

Results of Mobility Project Announced

The Association for the Blind of Rochester and Monroe Counties, Inc. in Rochester, New York, has announced the results of a project designed to strengthen services to the blind in Monroe County by providing mobility training through the employment of a fully trained peripatologist. The project was supported partly by a demonstration grant from the Vocational Rehabilitation Administration of the U.S. Department of Health, Education, and Welfare.

James Ryder, project director, and Eugene Luini, peripatologist, report on the project as follows: in the first year and a half of the project, the peripatologist spent 1,246 hours teaching mobility. In the next year and a half, he spent 311 hours teaching mobility, demonstrating that once the original backlog was served, a full-time instructor was not necessary; few lessons were necessary in many cases if the client was taught to make full use of his remaining vision; a hearing laboratory was designed but it proved to be unnecessary since few benefited from it. Mr. Ryder and Mr. Luini also concluded, after training others to teach mobility, that a master's degree is not essential for the teaching of mobility.

Editorial Notes

The following guest editorial was written by Winthrop K. Howe, Jr., a partner in the investment firm, Howe and Rusling, Inc., Rochester, N.Y., and a member of the board of trustees of the American Foundation for the Blind.

In recent years much has been done to help the blind, but unfortunately the overall effort has not in my opinion included an aggressive program to develop an adequate social life for persons with little or no vision. In the following paragraphs I hope to persuade the blind, and those who work for the blind, that such a program is not only necessary, but practical.

Since the turn of the century substantial gains have been made in bringing new and improved services to persons with little or no vision. Before 1900 blind persons who were not sheltered by family or friends were confined to institutions where discipline was harsh and little imagination was directed to improving either the social or economic welfare of the inmates. This era, known as the asylum age, was truly shameful.

A brief recitation of the modern attitude toward helping blind people will point up the contrast between the past and the present. Today experts are available to advise parents of congenitally blind children. Education in nursery schools, residential schools, public schools, and colleges is being taken advantage of by ever-increasing numbers of blind persons. Evaluation centers, job training, and placement services are increasingly effective in raising the earning capabilities of blind people. Local, state, federal, and private organizations offer a multitude of services not dreamed of seventy years ago. Mobility has been increased through training by professional peripatologists and by use of well-trained guide dogs. The greatly expanded use of braille and talking books has materially lessened dependence on sighted persons in the areas of reading and writing. Prevention of blindness and medical research have also been stepped up.

Blind Discriminated Against Socially

Despite these phenomenal gains, there is, I believe, one area where little has been done and great achievement is possible. Many blind persons who would benefit substantially from a more interesting social life have been unable to do so. They have not learned to combat the problem arising from the fact that the blind are discriminated against socially. Many persons engaged in helping the sightless do not agree that there is such discrimination and as a result the subject is extremely controversial. My own experience, plus that of other knowledgeable blind persons, convinces me that social discrimination against us exists and makes our attempt to live normally very difficult. Such discrimination exists because of what is often called the law of minorities. This law, simply stated, is that the public judges individuals in a group, whether they be there because of race, color, creed, or physical impairment, by its impressions of the average, less-competent members. Those who are competent are only recognized as being better than the "norm" when their accomplishments are appreciated as a result of long association with members of majorities.

I decided one way to overcome this discrimination is through training in the social amenities. For many years I have had increasingly strong convictions that there are numbers of blind people with sufficient learning capacity and tenacity materially to improve their social lives if someone would show them how. My hope is that those who work for the blind as well as the blind themselves, will appreciate the fact that there is a vital need for a social training program and will take action to implement it.

A Program for Social Training

Such a program would involve a careful selection of candidates; the preparation of a course of study; the organization of an extensive series of practice sessions and, perhaps most important, the choosing of appropriate teachers and assistants. The programs could best be carried out in residential schools for the blind; in the associations in our cities; and in rehabilitation centers. The curriculum would include instruction in grooming, dress, acceptable conversational practices; the elimination of blindisms such as shuffling, stooping; improvement in the attitude of blind participants toward sighted persons who offer help of various kinds; and the development of what for lack of a better word can be called the "light-touch." The watchword should be "Laugh and the world laughs with you, cry and you cry alone."

Practice sessions would involve the assumption of the role of host or hostess at social functions such as cocktail parties, dinner parties, or evening gatherings. Socially knowledgeable sighted persons would be invited to be part of the group.

Who Should Receive Training

The most logical candidates for this training would be single boys or girls in their late teens or early twenties. In this age group the need is greatest because courting is difficult, and lack of social success with sighted persons is apt to drive young blind people to associate exclusively with each other. Young married couples where either one or both are blind could also be helped materially. Blind persons over fifty in all probability could not absorb or would not need such training since their social habits have been well developed and their circle of friends established. Many younger blind people could probably not be induced to join a study group because they would not understand its purpose and would obtain no encouragement from family or friends. There are also many blind persons who are not naturally gregarious and, therefore, would not feel the need for such help. Only those who show the capacity to learn and are convinced of the value of the program would be good candidates.

Several questions have been raised concerning certain aspects of this idea. As noted above, many field-workers believe the blind are not discriminated against and that those who are smart enough to want to improve themselves can do so without any help. This, of course, I do not believe. Progress can obviously be greater with expert help than without it. Some see in this program an attempt to elevate the blind from a given social status to a higher one, which of course, would not be workable. Improvement of a blind person's social relations with his own group, at his own level, is all that is desired. Most people, blind or sighted, are most comfortable, and hence happier with, associates of their own economic and cultural backgrounds.

Some students of blind problems sincerely believe that no matter how much help is given, social discrimination cannot be substantially reduced and, therefore, the whole business would be a waste of time. In refutation of this position I would like to cite one outstanding case where improvement has been achieved as a result of encouragement and help on the part of sighted persons.

It Can Be Done

Miss B, almost blind, a graduate of a residential school for the blind, age 20, was a summer companion to my sister who is totally blind. An unfortunate family life had contributed to Miss B.'s unattractive personality. She spoke little, was often sullen, and spent her hours other than mealtime and working periods, by herself. She would not participate in the social life of the other young people and seemed to be having a very miserable time. It occurred to me that if I could persuade her to converse with others and join the rest of us swimming and at evening social gatherings she would be much happier. So, one day I decided to take the bull by the horns and suggest to her that being part of the crowd would permit her to have more fun out of life. I began by telling her that a good conversationalist asks questions and tries to draw out the person with whom he or she is conversing. I suggested that we start by talking about my pipe and tobacco. After a few minutes of silence she said, "What kind of tobacco do you smoke?" I answered, "Edgeworth." Then she asked why I liked that better than other kinds. As we talked she warmed to the subject and evidenced a hidden ability to be sociable and to inject humor into the discussion. This was the first of a series of practice sessions which gradually encouraged her to take part in our family life and to contribute substantially to the overall give-and-take of the summer colony young people.

Later she took a responsible job with a government agency. She now works in New York State, has made many friends, and has developed an extremely interesting social life. A few years ago the city newspaper devoted an entire page to her work, to her personality, and to her success—social and otherwise. Not so long ago I asked her if she thought she would have made such pronounced social gains if we had not conducted practice sessions years ago. Her answer was "No." She is vehement in her belief that such help should be available to all blind persons who wish to improve themselves. She thinks that without it only an occasional success would be achieved.

My Own Experience

In conclusion I would like to add a personal note. My own experience in adjusting to the sighted world is, to me, the most convincing example of what willingness to learn and acceptance of help from others can do to make the life of a blind person relatively tolerable. I have been commercially blind since birth and went through the tortures that seem to be the lot of teenagers with little or no vision. After graduation from Harvard Business School I was urged to join church, political, and social groups where I made many lasting friendships. My interest in music also permitted me to join others in many social functions.

I have, perhaps, been more fortunate than many blind people in having a father and others who encouraged and advised me. They arranged many social gatherings for my benefit. Later, marriage to a competent, attractive, sighted girl made it possible to extend my social circle by first entertaining, and then accepting invitations from those we had entertained. I am sure that other blind people discovered, as I have, that a blind man's waking hours, many of them black, are made more livable because of the anticipation of pleasure derived from thinking about a future social engagement where good friends will be met and fun will be enjoyed. I am very sure that I could not possibly have done as well if I had not had the encouragement and help of my parents and wife.

I have worked at convincing sighted persons that I do not bear characteristics of the "norm" as discussed above and I feel that I am able to hold my own in groups of interesting, sighted people. I desperately want other blind people to be able to look forward to the type of progress I have achieved and, therefore, am taking every opportunity to sell this concept to workers for the blind as well as the blind themselves. The many advances in education, technology, and in economic areas are not enough to create, in the minds of sightless people, a healthy attitude toward society. Satisfactory social life must be added, when and where possible.

Current Literature

The "Science for the Blind" Story *The Seer* (Pennsylvania Association for the Blind, 2843 North Front Street, Harrisburg, Pennsylvania 17110), Vol. 37, No. 3, September 1967, p. 14-17, 28-34. The story of the establishment and development of Science for the Blind by Dr. T. A. Benham. A discussion of the future plans for increasing the scope of the organization is followed by an annotated list of the current projects and special services now being offered.

St. Dunstan's International Conference on Sensory Devices for the Blind, by Howard Freiberger. *Bulletin of Prosthetics Research* (Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402), BPR 10-6, Fall 1966, p. 66-97. $1.00. Abstracts of all the papers presented at the conference which was held at St. Dunstan's in London in June of 1966.

The Development of a Reading Machine for the Blind, Summary Report, by Glendon C. Smith and Hans A. Mauch. *Bulletin of Prosthetics Research* (see address above), BPR 10-6, Fall 1966, p. 98-124. $1.00. A progress report covering the period July 1, 1965 through June 30, 1966 on the development of a personal-type reading machine for the blind sponsored by the Veterans Administration, Prosthetic and Sensory Aids Service (VA Contract V1005M-1943). The research is being done at Mauch Laboratories, Inc. in Dayton, Ohio. The report covers work on Visotactor A, Visotactor B, Multi-column Visotactor, Visotoner, the Colineator tracking aid, the Recognition Prototype, and the electromechanical Word Synthesizer.

Evaluation of the Sonic Mobility Aid, by Leo H. Riley, Gunther M. Weil, Allen Y. Cohen in collaboration with Frederick Chapman and Marilyn Stackman. *Bulletin of Prosthetics Research* (see address above), BPR 10-6, Fall 1966, p. 125-170. $1.00. A research report on Veterans Administration Contract #V1005-P-376-A, "A Training and Evaluation Programme for the Kay Ultrasonic Mobility Device." This report also appears in the Proceedings of the International Conference on Sensory Devices for the Blind, held at St. Dunstan's in London in June 1966.

The Large Print Revolution, by Alfred D. Hagle. *Library Journal* (R. R. Bowker Co., 1180 Avenue of the Americas, New York, New York 10036), Vol. 92, No. 16, September 15, 1967, p. 3008-3010. Mr. Hagle is reference librarian in the Library of Congress Division for the Blind and Physically Handicapped. Reprints of his article may be ordered, free, from the Division, Washington, D. C. 20542. A useful directory of the various types of publishing houses (together with their addresses) currently producing large print material is appended to the article.

Large Print: Trends in a New Field, by Karl Nyren. *Library Journal* (see address above), Vol. 92, No. 16, September 15, 1967, p. 3011-3013. Mr. Nyren, one of the editors of *Library Journal,* reports that librarians are plunging enthusiastically into a new opportunity for service to a surprisingly large group of readers.

Patterns of Educational Provision, by R. Howlett. *The New Beacon* (Royal National Institute for the Blind, 224 Great Portland Street, London W1, England), Vol. 51, No. 604, August 1967, p. 207-210. An address given to the annual general meeting of the Royal National Institute for the Blind in July 1967 by the Assistant Under-Secretary of State, Department of Education and Science. Mr. Howlett discusses The Institute's role—past, present and future—in promoting cooperation between voluntary and public services.

Survey of Guidance Programs in Schools for the Deaf and the Blind, by Margaret Power. *The Colorado Index* (The Colorado School for the Deaf and the Blind, Colorado Springs, Colorado 80903), Vol. 94, No. 1, October 1967, p. 1-3. An informal tally of responses by 64 schools and organizations for the deaf and/or the blind to a letter of inquiry requesting information about the use of counseling staff and the use of play therapy with the very young.

Contractions in Braille, by Richard Dufton. *St. Dunstan's Review* (St. Dunstan's, 191 Marylebone Road, London, NW1, England), Vol. 52, No. 579, October 1967, p. 5-6. Mr. Dufton represents St. Dunstan's on the National Uniform Type Committee.

M.R.R.

News in Brief

■ Douglas C. MacFarland, Chief, Division of Services for the Blind of the Rehabilitation Services Administration, received the Sustained Superior Work Performance Award at the annual Social and Rehabilitation Service Awards ceremony on December 7. The award was presented to Dr. MacFarland in "recognition and appreciation of leadership in the development of new and innovative programs and resources for the rehabilitation of blind persons."

■ Three new members were elected to the board of directors of National Industries for the Blind during the organization's annual meeting in October. They are Harold L. Emlet, superintendent of the Georgia Factory for the Blind in Bainbridge; Austin G. Scott, executive director of the Dallas County Association for the Blind; and Major John F. Brady, executive director of IHB Industries of the Industrial Home for the Blind, Brooklyn, N.Y.

■ The LH Mini-Scope, an inexpensive afocal 2.5X telescopic unit, to be used as an aid for distance and near vision by partially sighted persons, has been introduced by the Lighthouse Low Vision Services of the New York Association for the Blind. It will be available on prescription at a cost of approximately $25.

The LH Mini-Scope comes in two models for use with or without distance correction. One model is inserted into a standard spectacle frame for use without distance correction. The other model is set in a clip-on holder with a flip-up feature for use over correction. Special lens caps will be available to convert the telescopic unit for use at working and reading distances.

■ The 1967 Nobel Prize in physiology or medicine has been awarded to Dr. George Wald, professor of biology at Harvard; Dr. Haldan Keffer Hartline, a biophysicist at Rockefeller University; and Professor Ragnar Granit, a neurophysiologist at the Royal Caroline Institute in Stockholm, Sweden. The $62,000 award honors the men for forty years of research into the human retina and the physiological and chemical processes of perception.

■ April 1, 1968 is the deadline for applications for the Delta Gamma Foundation summer scholarships for training of orthoptists and teachers and consultants for visually handicapped children. For further information about the scholarships, write to Mrs. Thomas D. Rush, 9 Inwood Oaks, Houston, Texas 77024.

■ *Dialogue*, the recorded service for the blind, has presented its second annual Public Service Award to Cecily Hoffman Biondo of New York City. Mrs. Biondo received the award in recognition of her achievements in civic affairs and in work for the blind. Mrs. Biondo has been a member of New York City's Planning Board No. 7 and its Narcotics Committee, and was editor of *The Profile*, a publication of the Jewish Guild for the Blind.

■ The Swedish Post Office Bank has created a special department to deal with the deposits and remittances of blind people. The new department, developed in cooperation with the Swedish Association for the Blind, offers a number of special services such as bank account statements in braille and procedures for bill payments which do not require the blind person to come to the post office. The service, at present operated on a limited experimental scale, is the first government sponsored project of its kind in Sweden. However, the Swedish Association for the Blind is hopeful that other public services and private companies will follow suit.

■ The President's Committee on Employment of the Handicapped and the National Health Council have joined forces in an effort to expand job opportunities for the nation's severely handicapped. Plans for this major campaign were announced at a conference in Washington this fall attended by representatives of 25 voluntary, professional, and governmental agencies.

Among the major problems discussed in the meeting were misunderstandings relating to workmen's compensation and insurance and architectural and transportation barriers which impede mobility.

■ *True: The Man's Magazine* has been added to the list of periodicals regularly recorded on talking books for blind, visually impaired, and physically handicapped readers.

■ Robert S. Bray and Arthur N. Magill have been elected to the board of trustees of the American Foundation for the Blind. Mr. Bray is chief of the Division for the Blind and Visually Handicapped of the Library of Congress in Washington, D.C. Mr. Magill is managing director of the Canadian National Institute for the Blind in Toronto, Ont., and is the president of the American Association of Workers for the Blind.

■ The United States Braille Chess Association, which was started this past summer in San Francisco, is interested in enlisting members from all parts of the country to encourage and assist in the promotion of chess among the blind. Anyone interested in joining this new group should write to Grant Metcalff, USBCA Secretary, 213 California Avenue, South San Francisco, California 04080.

■ Beginning this spring, Charles Scribner's Sons will publish complete and unabridged large type editions of some of its best-known titles. *The Great Gatsby, The Snows of Kilimanjaro and Other Stories, The Old Man and the Sea, Look, Homeward Angel, A Farewell to Arms,* and *The Wind in the Willows* are among the titles to be included in the new series. These complete and unabridged large type editions will be made available to libraries, schools, and institutions.

■ The 1967 edition of the *Directory of Services for the Deaf in the United States* has been published by The American Annals of the Deaf. The *Directory,* which contains more than 500 pages of information on all aspects of education and rehabilitation services for the deaf, is available for $3 per copy from the Office of the American Annals of the Deaf, Gallaudet College, Washington, D.C. 20002.

Coming Events

February 8-10 Wills Eye Hospital Annual Clinical Conference, Philadelphia, Pa.

February 17-21 American Association of School Administrators, Atlantic City, N.J.

March 4-6 National Council on the Aging, Eastern Regional Meeting, Washington, D.C.

March 24-27 National Rehabilitation Association, Region III Convention, Washington, D.C.

April 14-20 Council for Exceptional Children, New York, N.Y.

April 15-16 American Association of Workers for the Blind, Mid-West Regional Conference, St. Louis, Mo.

April 17-19 National Rehabilitation Association, Region VI Convention, St. Louis, Mo.

May 23-25 4th Annual Conference of Ultrasonography in Ophthalmology, Philadelphia, Pa.

May 26-31 National Conference on Social Welfare, 95th Annual Forum, San Francisco, Calif.

May 27-29 National Rehabilitation Association, Region II Convention, New York, N.Y.

June 3-7 National Rehabilitation Association, Region VIII Convention, Casper, Wyo.

June 12-14 National Rehabilitation Association, Region I Convention, New Haven, Conn.

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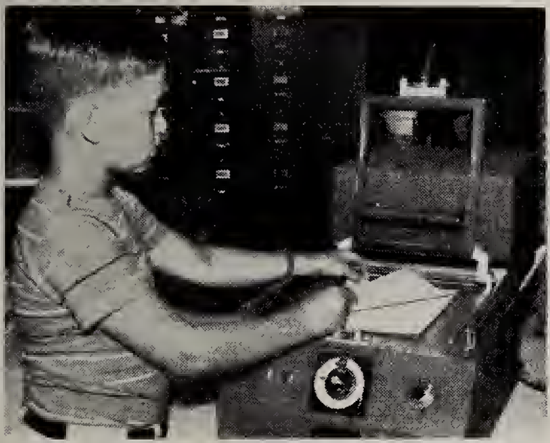

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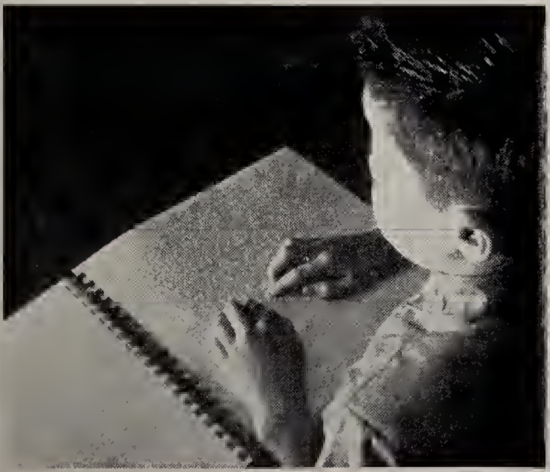

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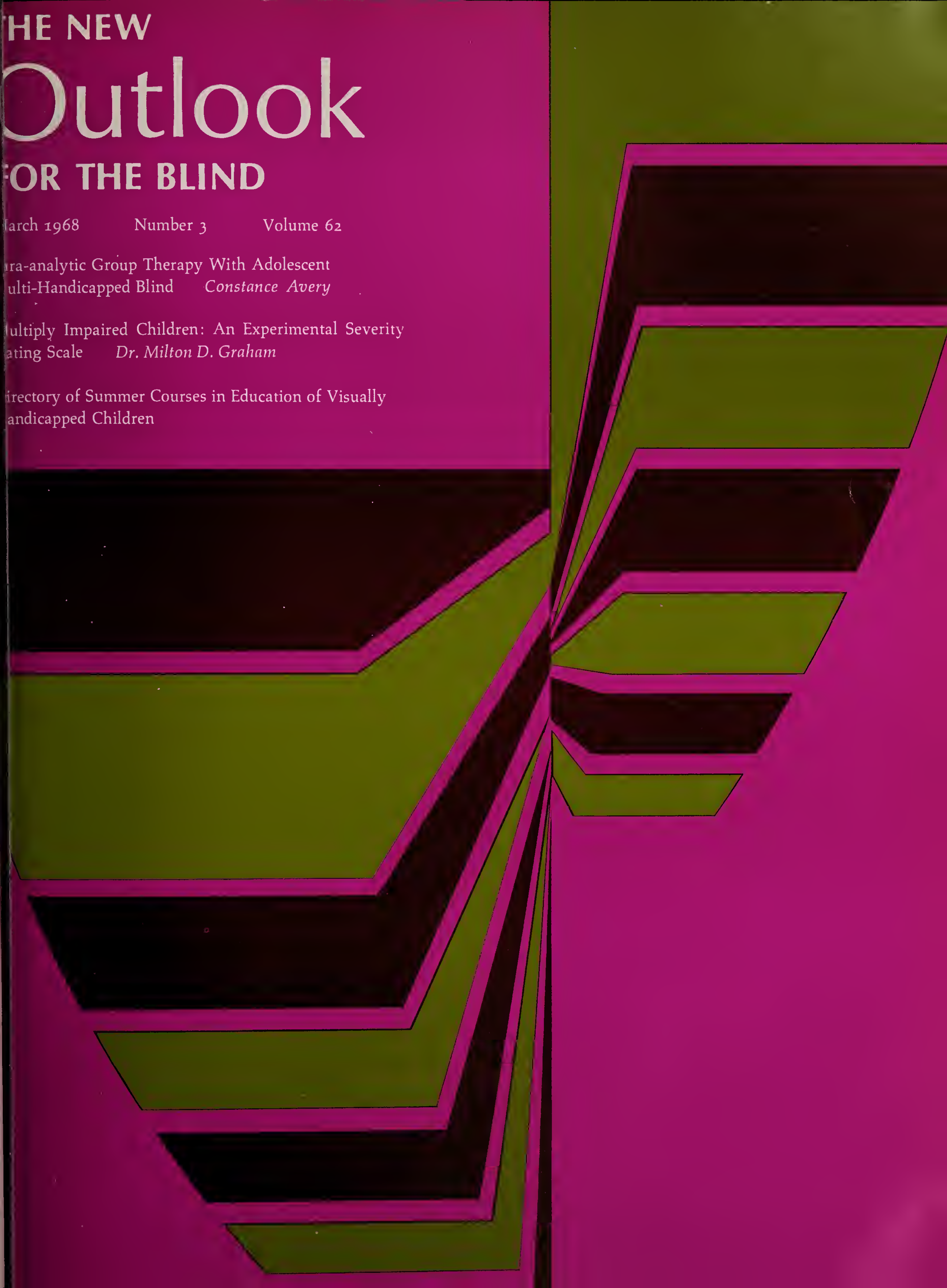

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Para-analytic Group Therapy With Adolescent Multi-Handicapped Blind

CONSTANCE AVERY

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There appears to be a paucity of literature on group psychotherapeutic practice with the blind and especially on group psychotherapy with the multi-handicapped blind. The only reference in the literature is Cholden's (1958) paper on group therapy with blind adults.[1] This is a gap that needs to be filled. Group psychotherapy can serve many purposes. The goals and methods of operation depend upon the ages of the populations that make up the groups, the types of problems the members of the groups encounter, their academic, social, emotional, and vocational limitations and prospects.

A vehicle for general interpersonal interchange and communication

At Oak Hill School, a residential school from kindergarten through high school, conducted by The Connecticut Institute for the Blind, group psychotherapy sessions have been conducted for two and a half years with groups of blind and multi-handicapped adolescent boys and girls. Group psychotherapy sessions were started to give adolescents an opportunity to ask questions about sexual matters that their parents or housemothers might have been reluctant to answer, and to express emotional difficulties in an atmosphere where their feelings could be reflected and interpreted. The sessions also aimed to provide a vehicle for general interpersonal interchange and communication among youngsters experiencing similar adjustment difficulties at the critical period of adolescence. The boys' group was conducted by a male therapist, the consulting psychiatrist. The girls' group met with the author for forty-minute sessions weekly, from September to the end of the school year in June—amounting to about sixty-eight sessions for two years. In the two years of working with the two different multi-handicapped groups of adolescent blind girls, many similarities were found among groups, but each of the group interactions took on a different form depending upon its configuration, the personalities of its members, the social judgment and sophistication of the participating members, and the nature of the problems that were uncovered. Slavson noted that in both group psychotherapy and in individual treatment individuation of approach and process is essential.[2] He felt the fusing of analytic group psychotherapy with guidance, counseling, advice, and "teaching," as indicated, is the cardinal principle of para-analytic group psychotherapy.(2)

The Role of the Therapist

☐ The therapist's role with these multi-handicapped groups of adolescent girls was a multifaceted one depending upon the needs of the individual group members and the direction the discussion itself took. Basically the therapist's role was analytical—reflecting the feelings of the group members, clarifying the reality aspects of their thinking and behavior, and interpreting their feelings and actions. There were, however, times when her role was more that of a counselor, proferring answers to questions on matters such as sex, reproduction, and child care. The therapist encouraged group discussion but, in the presence of imperfect or incomplete knowledge on factual matters concerning such subjects as sex and reproduction, she supplemented this information by supplying accurate factual information. However, she also reflected the emotional content behind the questioning. The therapist tried to keep the direct question and answer aspect of the sessions to a minimum, leaving the sessions more non-directive and less structured.

In the first therapy session conducted at Oak Hill the therapist led the group to establish some ground rules. It was suggested that whatever was discussed during the session be kept in confidence and confined to the group itself. The therapist said that the group meetings would be an opportunity for the girls to talk over any problems they had and to discuss personal difficulties. The girls seemed to relish the opportunity to talk about problems they had kept suppressed and contained within themselves.

Description of First Group

☐ The first group had seven members who ranged in age from fourteen to nineteen. A description of a few of the members and the course of their participation and progress in the psychotherapy sessions follows.

"M" was eighteen years of age and had limited reading vision. She wore thick glasses and traveled independently. She was in the "special" class, which consists of those with a dull normal to mentally retarded intelligence along with some other psychological or neurological limitation that caused them to function subnormally academically. Besides blindness, "M" was handicapped by defective speech and neurotic and character problems, as diagnosed by the consulting psychiatrist. At home she was greatly over-protected and sheltered, and at school she appeared to have no close friends. She was cooperative, quiet in class, and a careful worker. She seemed to have made an adequate adjustment to the "special" class. At age thirteen she was in a state mental hospital for one month, but the diagnosis and progress of her illness were unknown as no records were transferred to the school due to denial of parental permission. Her parents made an unsuccessful attempt to readmit her to the hospital a short time after her discharge.

"J" was eighteen years old and had no useful vision. She had a current average intelligence, which had risen from a previous dull normal level. Her electroencephalogram was consistent with diffuse encephalopathy. She was considerably overweight and troubled by a moderate congenital deafness. Besides these handicaps, she had character problems partially resulting from an overprotective home environment. Her emotional tolerance was low so that her behavior was explosive, impulsive, distractible, irritable, and lacking in control. She had a short attention span, her general manner was negative, and she was a compulsive talker. She was in the "special" class because of her psychogenically and organically originated behavior problems. According to her teacher she could get things done when she had the desire. Her work habits were acceptable and she was a fluent reader with good comprehension.

"E" was fifteen years old and had no useful vision. Her I.Q. was average, having risen from the borderline range in nine years. She was excessively loquacious and engaged in rocking movements, eye poking, and rigid ex-tension of her fingers. Her illusional material bordered on delusion and ideas of reference were prominent. Her grades were mainly fair and good.

Process and Apparent Outcome of First Year Group Members

☐ "M" had been having difficulty with her speech, which was gradually improving under the aegis of the speech therapist. "M" was getting quite discouraged because of the limited progress she was making. She seemed heartened by the group's encouragement that changes were gradually taking place, even though she couldn't see dramatic differences. She "tightened up" and was not able to speak well when she became particularly anxious. It was not until the twelfth group session that she could reveal herself sufficiently to talk about personal things that were troubling her. She finally felt comfortable enough to express confidential family and emotional problems. Her usual method of coping was to keep her feelings within herself and not communicate them. This mode of operation was encouraged by explosive and volatile parents who were always ready to launch a verbal attack on her. She felt that the catharsis afforded by the group experience of talking about family problems enabled her to express herself more openly with them and express her discontent with the general pattern of operation. Having the opportunity to talk about the turmoil may have given her the chance to reorient her ideas and feeling and present a more direct front to family members.

"J" initially recited a list of grievances against certain boys and girls in school. She felt that the boys abused her. They tried to knock her down and made depreciatory remarks to her because of her obesity. She was also concerned because the boys touched her "in private areas." She exhibited a lot of zealous religiosity and preoccupation with getting into sexual difficulties and being injured by boys. She related stories of teenagers who had sex experiences, which she considered sinful, and "against moral and civil laws." During the sessions she interrupted with various irrelevancies and continued with her private monologue unless the therapist interrupted to give the other group members a chance to speak. She revealed problems with handling her own anger as well as being aggressed against and rejected by others. Of paramount concern were her troubles in the classroom with certain teachers. She liked to air grievances against her housemother, the school curricula, and the school menus. On occasion the group became annoyed with her over-exaggerated and emotional deliveries, and directly informed her to stop acting "so badly." The girls censured her intrusive behavior and reflected the inappropriateness of her nonsequiturs.

Proper handling of aggression a common problem

After a time "J" was able to see that the other girls also had problems with handling aggression. The group experience may have helped her to see that, because a particular mode of living was a way of life for her, it could not be imposed on the other members of the group, who had their own equally valid methods of conducting their lives. Her experience in group psychotherapy gave her an opportunity to see herself in the eyes of her peers, which might have contributed to or brought about changes in her attitude and manner. She appeared to gain some insight into her problems. Her behavior became more socially acceptable and her attitude more open and tolerant.

"E", in spite of her own suspiciousness, hostility, and cynicism, assumed the role of a co-therapist in clarifying reality, reflecting the feelings of other members of the group, and in validly interpreting the behavior of other members of the group. It was particularly "J's" feelings that "E" interpreted. When "J" became particularly irrational or constricted in her thinking, "E" clarified the other point of view. "E" reflected the differences among people and their varying ways of expressing their feelings. She emphasized the necessity for mutual respect of attitudes and feelings.

Inability to establish close friendships

"E" showed flagrant paranoid attitudes about having her privacy invaded, where "welfare people" read her mail and watched her home. She was unable to establish close friendships with any of the girls or boys at school, but continuously persevered in her old relationship with one of the students who had left school several years before and whom she had not seen since and from whom she had received but one written communication. "E" would persist in telling people about this friend and in asking for definitions for words such as "fresh," which had been used to describe the girl. "E" used the mechanism of denial of hostility towards her family and repression of her own anger as primary defenses. She expressed fear of getting too close to people and held grudges against many classmates and staff. She felt she could trust no one. She exhibited a strong transference relationship to the therapist and tried to involve her in displays of affection towards one of the other girls. The therapist was treating "E" in individual psychotherapy sessions also, so that the problems she revealed in the group could be handled individually too.

Description of Second Group

☐ The second group had six members whose ages ranged from thirteen to seventeen. Some of these members and their experiences in the group are described below.

"A" was in eighth grade. She was fourteen years old and had no useful vision. Her I.Q. had remained consistently in the bright normal range and she had no additional handicap. She was independent, mentally capable, and alert, but exhibited tension by biting her fingernails. She got along well with the other students. Her grades were good and excellent.

"D" was sixteen years of age and had no useful vision. Her I.Q. had risen from the mentally defective to the dull normal range in three years. An abnormal electroencephalogram suggested brain damage. Her disorganized behavior was diagnosed by the psychiatrist as neurotic. She was very anxious and hyperactive, seemingly unable to sit quietly for any length of time, and revealed tension by twisting hands, rocking movements, and continuous talking in a hurried fashion. She seemed very fearful and defensive. Her fears were related to physical harm, being overwhelmed by circumstances, and the consequences of displeasing people. She was overly moralistic, impulsive, and distractible. Her marks were all good to fair.

"H" was seventeen years old. She had enough vision to read regular first grade print. Her I.Q. had increased from the borderline to the dull normal range in just four months since a recent short stay in a mental hospital, where she had been hospitalized as a result of active hallucinatory and uncontrolled wandering, screaming, and a suicidal attempt. At that time she showed inappropriate affect and appeared moderately depressed, with "emotional deterioration." She showed no insight or judgment and her sensorium was confused. Her illness was diagnosed as a possible acute schizophrenic reaction. At the time of her admission to school her anxiety revolved mainly around failing vision but she appeared to have appropriate affect, be well-oriented, and aware of her social situation. She was quiet and controlled in the group. The staff reported, however, that she was reluctant to approach people, but was courteous and well-disciplined in the classroom, accepting all classroom responsibilities willingly and cheerfully. She was in the "special" class because of dull normal intelligence and emotional difficulties, but in this placement she completed assignments and worked well independently.

Process and Apparent Outcome of Second Year Group Members

☐ "A" took the role of a co-therapist in this group. She reflected and interpreted the feelings of the other girls and profferred counsel to them. "A" felt that many of the grievances of the group were petty and that the girls should overlook and transcend them, rather than getting caught up in them. "A" expressed the feeling that all of the members of the group were there to help each other. She expounded the philosophy of individual decision and action as long as the rights of others were respected and protected.

"D" was concerned with the "double binds" that her family put her in, where her mother told her to do something in a particular way but when she did, her mother would get angry at her for doing it in that fashion. In the sessions she related to specific individuals one at a time and interacted individually with the therapist, as "J" had done the previous year.

One member in each group assumed role of co-therapist

"D" had many complaints about people who annoyed her. The girls gave her various suggestions about ignoring the criticism of others or protecting herself by countercharging verbally. "D" revealed conflicts about wanting to please others as opposed to pleasing herself. Her overt desire was to please others, but covertly she resented compromising her own desires and needs. "D" also believed that parents should keep tight limits on young people, indicating a fear of her own uncontrollable impulses. She revealed problems in heterosexual relationships, feeling she was a misfit in not being approached for dates. The group reflected "D's" feelings and profferred advice, while the therapist interpreted her underlying feelings and motives. She seemed to want the attention of authority figures at all times and appeared quite dependent upon her teacher, mother, and the therapist. In dreams she related, "D" revealed a lot of underlying aggressive feelings towards her mother, particularly during her recent pregnancy. Her dreams also revealed considerable hostility towards her father, while abundant aggression was turned against herself in dreams of self injury. Her underlying anger towards her parents and concomitant punishment of herself was interpreted to her by the therapist, which may have enabled her to understand the hostility she harbored against her family. "D" appeared to have gained some insight into her dependency, her hostility towards her parents, and her attempt to punish herself through interpretation of her dream material.

"H" added frequent comments by way of personal appraisal and interpretation of social situations. She revealed considerable awareness and social judgment. At the same time she received needed factual information on sex, reproduction, and birth, and corrected several misconceptions that she had been harboring. "H" seemed quite alert, interested, and responsive in spite of the schizophrenic episode she had suffered several months before. She turned out to be one of the more active contributors of information on interpersonal relationships and social behavior despite considerable naiveté.

General Findings

☐ The group sessions gave the girls an opportunity to discuss matters that could not be handled or referred to in the classroom, and an opportunity for emotional release and working through of personal problems. The members shared their experiences and feelings. The group situation provided an opportunity to engage in social interaction with contemporaries and to air problems in an atmosphere of peer acceptance. The participants appeared to have gained a greater social maturity and sophistication, possibly from the recognition that many of their problems were similar to those of other adolescents. Quite significantly, they seem to have learned that no problem was so serious that it could not be aired in the group.

What topics should be discussed?

At times there was some conflict as to what topics could be discussed. In the second group certain members wanted to discuss topics such as LSD and general drug usage, whereas the rest of the group felt that these were "not appropriate." The general feeling was that they should discuss subjects of common interest rather than "way out" topics of limited interest. The first group, however, was willing to accept all material as appropriate. Their patience became frayed only when one member persistently brought up topics that revolved around her own zealous morality and religiosity.

The girls had the opportunity to talk about particular grievances, unleash vitriolic tirades, and air grudges and grievances against family, friends, and school. They were allowed to express their anger and may have gained some adequacy in controlling it by using socially acceptable means of expression. They may have also gained insight into the unreasonability of exaggerated aggression in the light of present family realities. One general problem that concerned most members of the groups was fear that they might not be able to control their behavior. Thus they were afraid of having too much freedom and seemed to need and appreciate the firm limits of home and school. They were also in conflict as to how far they should go along with family dictates and how much they should rely on their own judgment.

General Discussion Topics

☐ Some of the topics brought up for discussion were boy-girl relationships, dating habits, emotional reactions of men and women, marriage, mixed-marriage, menstruation, sex, reproduction, pregnancy, labor, birth, prematurity, baby care, and death. Other topics included physical and mental illness, medical examinations, sibling rivalry, camp problems. It was suggested that in the future a discussion group be held with boys and girls together.

Areas of resistance

Resistance periodically came up within the group. The girls became reluctant to probe personal areas of difficulty and were silent and uncommunicative. After long periods of silence, the therapist offered topics of conversation revolving around suppressed feelings of fear and anger. This elicited new material for discussion and opened up a renewed stream of conversational exchange and emotional ventilation. Once a topic of conversation such as family or school problems was broached by one of the girls, the rest of the group members picked it up and expressed their own feelings on that subject. The general conversation became more spontaneous and active and they talked more freely about personal difficulties.

Confidentiality

One of the members of the second group did not respect the confidentiality of the group, and the others refused to bring out more personal material. To insure future confidentiality the group members themselves decided to censure the informer, by keeping her out of the sessions for a two-week period. This may have contributed to the maturity of the offending member when she learned to respect the limits of the group.

Problems Concerning Blindness

☐ Some of the general group discussion revolved around the specific problems of blindness. The girls were very concerned about the difficulties they would encounter as blind mothers in caring for their children. The group sessions afforded them an opportunity to express their trepidation and exchange their views on child care. There were many discussions revolving around blindness itself—how people got blind, what types of diseases or trauma caused blindness, and the mannerisms of the blind. They exchanged ideas and were allowed to channel feelings on mobility for the blind, and dog guides versus cane travel. There were emotional discussions on marriage to a blind man versus marriage to a sighted man. The girls were anxious to discuss how a sighted person could recognize a blind individual. They resented the pity of sighted people and their implicit rejection in considering the blind so different from themselves.

The girls felt they were disallowed from performing duties around the house that they could handle adequately. They wanted to help with cooking, cleaning, and ironing but felt their mothers either were too busy to teach them or were too fearful of the assumed hazards of allowing blind girls to participate, even though their daughters had received training in the domestic arts at school.

Relations with sighted population

The girls harbored strong resentments against people doing things for them. They felt that the sighted population outside school did not recognize their capabilities in tasks of motor coordination, dexterity, and mobility. Sighted people outside of the school milieu did not seem aware of the efficiency and skill of the blind in domestic work, certain sports, industrial arts, shop work, handcrafts, and academic studies. On the other hand, they felt that sighted people had an exaggerated view of their capabilities in other spheres, such as speed of movement, spatial conceptualization, and proficiency in self-care habits such as dressing and eating. In these areas it was difficult for them to measure up to a sighted person's expectations. They felt that sighted people didn't give them the opportunity to show what they could do, before it was assumed they could not do it.

The girls felt their families also needed a reorientation of their general attitudes and level of expectations for their blind children. Parents, they believed, were lacking in knowledge of what their blind children could do and unaware of their full capabilities. On the other hand they either pressed them to attempt more than they could handle or were intolerant when they could not participate in certain activities or measure up to levels of expectation set for the sighted. Families appeared to them to be particularly intolerant towards those children who also had neurological, intellectual, and psychological handicaps superimposed on their blindness. The resultant problems appeared to the students to have stemmed from emotional prejudice and lack of information that caused the sighted to disallow the multi-handicapped blind most of their remaining assets and capabilities.

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2. Slavson, S. R.: "Para-analytic Group Psychotherapy: A treatment of choice for adolescents." *Psychotherapy Psychosomatics*, 13, 321-331, 1965.

College-Prep Program Held in Detroit

Fourteen blind high school graduates participated in a College-Prep Program at the Rehabilitation Institute, Detroit, last summer. The University of Detroit dormitories provided living accommodations for the students. All participants traveled to and from the Institute by bus, a 45-minute journey. Curriculum for the program consisted of instruction in mobility, activities of daily living, occupational therapy, communications, academics, and group sessions. Vocational counseling, psychological testing, and physical therapy were offered if recommended. A staff psychiatrist medically screened each student.

When possible, programs were tailored to the individual. Mobility instructors offered intensive instruction in the long cane technique for totally blind students. Partially sighted students learned to watch for landmarks and to work out travel routes. Other areas that received special attention were eating habits, personal grooming, knitting, sewing, and braille and/or typing. The academics course covered such points as good grammer, punctuation, spelling, composition, and research techniques. Students gained experience not only in writing but in locating readers and resources for research materials. Most students also became adept abacus users. The students who had postural or gait problems received physical conditioning.

In the group sessions, students and staff exchanged ideas and information about recruiting readers, locating recording resources, note taking, exams, etc. Guest lecturers appeared and Careers Week presented professionals from various fields. Students reaction to the course was very favorable. Participants agreed that group sessions were helpful; many asked that future discussions permit more two-way communication between students and staff.

Another program is planned for the 1968 summer. Referrals are made through Michigan's Division of Services for the Blind.

Multiply Impaired Children: An Experimental Severity Rating Scale

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Recently the research department of the American Foundation for the Blind collected data on 8,887 multiply impaired blind children throughout the United States. Besides documenting the already obvious fact that multiply impaired children are a national problem about which little is being done nationally, we had to ask ourselves how the data might be used to help agencies and institutions in the field concerned with this growing group of children. By chance two documents came to our attention that confirmed our suspicion that a new approach to handling such data was needed.

The first was a doctoral dissertation which with some changes was recently published as American Foundation for the Blind Research Series No. 16: *The Blind Child with Concomitant Disabilities* by James M. Wolf, Ed.D. (University of Pittsburgh), 1967. Dr. Wolf reviews the various incidence and prevalence studies but can find nothing more useful in them than the accepted facts that the number of multiply impaired children is increasing as births of premature babies increase, facts that nobody disputes. But how *useful* is it to have the obvious documented?

The battle of the classifiers

Wolf also thinks that much confusion has arisen from studies and statistical compilations that bog down in what may be called the battle of the classifiers (my phrase, not Wolf's). A great deal of valuable data has been wasted in the discussion over which of several disabilities is primary and which secondary, which should be treated medically first and which should be considered first in the education of the child, and so on. These are futile exercises, it seems to me, because it is the whole configuration of the child's needs (physical, mental, and emotional) that should concern us. What does it matter whether his cerebral palsy is more severe than his visual loss? The question is "What can we do for him?" "What resources do we need to help him?"

This last question is important and basic to the discussion. Wolf quotes Goodenough as saying "even with the best of training only a few of the children who suffer from more than one major defect can become capable of complete self-support in a world of normal people." How widespread this view may be is hard to tell, but if it is too prevalent we will need many more institutions for custodial care only, "jungles." The underlying assumption to this whole discussion is: *given the proper diagnoses, training, and care, multiply impaired children can be helped to achieve more effective living.* This has been done in individual cases and with at least one group in a systematic way.

An Experimental Program

☐ It is the group experience that has some valuable lessons for us because it offers a simple and effective method. A research project at the Oregon State School for the Blind under the supervision of Mr. Charles C. Woodcock has as its "overall objective . . . . to design a therapeutic school program for the multi-handicapped blind child. The purposes of the program will be:

(a) to identify those children who can profit from such a program from among the large group of multihandicapped blind children;
(b) to develop medical, psychiatric, psychological, and educational evaluation procedures which will help make it possible to identify good prospects for special programs;
(c) to maintain these children in the special program only so long as they require its protective benefits, and to move them into regular classes as soon as possible; and
(d) insofar as possible, to avoid the institutional transfer of the multi-handicapped blind child to the mental hospital or to a home for the retarded."

Besides a most effective proof of his thesis that such children can be educated —and a striking 16 mm color film is one part of that proof—Dr. Woodcock has offered us an alternative instrument that is worth discussion and experimental use. Faced with the problem of estimating the resources he needed to accomplish his goals with the twelve multiply impaired children who were the experimental group, he needed to know something about the *severity* of the children's problems. Taking the questionnaire from the AFB survey of multiply impaired children—which had previously been adapted from Wolf's questionnaire for his dissertation—Dr. Woodcock devised a rating scale that gave a numerical rating for each child and a group rating as desired.

The Rating Scale

☐ The rating scale was devised in this way. Starting with the premise that one average teacher can handle ten "normal" blind children, it can be stated quantitatively that blindness alone has a numerical value of six and therefore that one average teacher can handle a teaching load of sixty points. Then, placing weighted numerical scores on all other impairments and disabilities in terms of severity, the following table can be followed to compute an individual child's score:

Oregon Severity Rating Scale for Multiply-Impaired Children

(Experimental)

A through E is based on the difference between their chronological age as of April 15, 1966 and their level of achievement academically by results of the Standard Achievement Test.

A Student one year or more ahead of chronological level on Stanford Achievement Test—minus 2
B At chronological grade level on SAT—0
C One year below chronological grade level on SAT—2
D Two years below chronological grade level on SAT—4
E Three or more years below chronological grade level on SAT—6

F Congenitally totally blind or blind very near birth or has extremely distorted vision—2

G through I are below average IQ scores based solely on classroom observation of their functioning level. Their potential may be higher.

G Observed functioning IQ of 75-90—4
H Observed functioning IQ of 50-75—6
I Observed functioning IQ below 50—8

J Hard of hearing (mild)—2
K Hard of hearing (moderate)—4
L Hard of hearing (severe)—6

M through P are emotional disabilities. Definitions are based on the effect of the disability in the classroom. It is not a medical definition.

M Emotional problem Neurotic 4 Neurosis, a minor mental disorder which may manifest itself as a bodily disturbance without structural abnormality. Emotional reaction may be intensified or dulled, but not sufficiently to change the individual basically.

N Emotional problem Hyperactive 8 Hyperactivity, an episode of transient disorganization in which the external factors are apt to be lost sight of because of the conspicuousness of the internal factors. The child gives the impression of a human engine which has lost its governor. He talks too much, goes too fast, sleeps too little, displays incessant, essentially aggressive behavior, and impaired judgment.

O Emotional problem Autistic 8 Autism, a condition of mental introversion in which the attention or interest is fastened upon the child's own ego. A self-centered mental state from which reality tends to be excluded. The child daydreams, withdraws, and finds satisfaction in phantasy of wish fulfillment. There is little or no interaction with others.

P Emotional problem Psychotic 8 Psychosis, a mental disorder of such magnitude that there is personality disintegration and loss of contact with reality, usually without clearly defined physical cause or structural defect of the brain. The child may have hallucinations and manifest marked indifference and distorted behavior.

Q Usually requires a guide for mobility—4 Immobile—8
R Speech handicap (mild)—2
S Speech handicap (moderate to extreme)—4
T Cerebral palsy (mild)—2
U Cerebral palsy (moderate)—4
V Cerebral palsy (severe)—6
W Brain damage (mild)—2
X Brain damage (moderate)—4
Y Brain damage (severe)—6
Z Epileptic, not adequately controlled by medication—2 to 8

An example for clarification

Before discussing the implications of the Severity Rating Scale, let us take an example for the sake of clarification. One of the students the city schools of Whittier, California, reported on the AFB survey of multi-impaired children was: Michael G., male, aged thirteen, born November 26, 1952, visually impaired (ADD 6) from retinal scars, from birth (ADD 2), no data on CA on SAT but reading grade level is two for thirteen-year-old (ADD 6), with an IQ in the 50-75 range (ADD 6), no hearing impairments reported, no emotional problems reported, mild speech handicap (ADD 2), no cerebral palsy reported, past history of epilepsy (ADD 2), no other conditions reported, travels independently. Total score for Michael G.: 24. In terms of teacher load, one average teacher could be expected to handle 2.5 Michaels or an experienced and above-average teacher could handle three Michaels without undue stress.

Limitations of scale

There are obvious limitations to a scale such as this, the greatest of which is difference of interpretation by raters. For example, the terms mild, moderate, and severe might be more specific. Immobility might be defined more specifically. And so on. Hoping to cut differences of interpretation to a minimum, I suggest experimental use of the following modified severity scale.

Experimental Severity Rating Scale for Multiply Impaired Children

(Modified Woodcock Scale, 1967)

Tests

I. Functional Vision Test

Blindness

(1) Totally blind (a) from birth or (b) before 3 years-old ADD 10

(2) Light perception *(not projection)* (a) from birth or (b) before 3 years of age ADD 10

Severe Visual Impairment

(1) Answers "Yes" to "Can you see where the light comes from?" and "No" to all other questions below. Light projection only. ADD 10

(2) Answers "Yes" to "Can you see moving objects like cars?" and "*No*" to all other questions below. Counts fingers. Has Snellen 1/200 to 5/200 and
    (a) poor fields (under 200) ADD 10
    (b) good fields ADD 8

(3) Answers "Yes" to "Can you make out a friend's face?" and "*No*" to all other questions below. Snellen 6/200 to 9/200 and
    (a) poor fields ADD 10
    (b) good fields ADD 8

(4) Answers "Yes" to "Can you see to step down?" and "*No*" to all other questions below. Snellen 10/200 and 15/200 and
    (a) poor fields ADD 8
    good fields ADD 6

(5) Answers "Yes" to "Can you recognize a friend across the street?" and "*No*" to all other questions below. Snellen 15/200 to 20/200 and
    (a) poor fields ADD 6
    (b) good fields ADD 4

(6) Answers "Yes" to "Can you read ordinary newspaper print (*8-10 point*) without glasses?" and "*No*" to all other questions below. Snellen 20/200 to 20/70. Reads large type books with corrction to 20/70 or J7 and
    (a) poor fields ADD 4
    (b) good fields ADD 2

(7) Answers "Yes" to "Can you read *ordinary* newspaper print (8-10 point) without glasses?" Snellen 20/50 or better. J5 or better. and
    (a) poor fields ADD 2
    (b) good fields 0

II. Functional Hearing Test

Deafness

(1) Deaf from birth or before 3 years ADD 8

(2) Deaf after 3 years old ADD 6

Hard of Hearing (with correction of hearing aid)

(1) Hears only shouts at 3 to 5 feet ADD 4

(2) Hears only raised voice at 3 to 5 feet ADD 2

(3) Hears normal speaking voice at 3 to 5 feet 0

III. Functional Chronological Age vs Academic Level of Achievement Test

(1) Three or more years below chronological grade level on Stanford Achievement Test (SAT) or three or more years below expected reading grade level (with age 6 being first grade, 7, second grade, etc.). ADD 6

(2) Two years below chronological grade level on SAT or two years below expected reading grade level ADD 4

(3) One year below chronological grade level on SAT or one year below expected reading grade level ADD 2

(4) At chronological grade level on SAT or at expected reading grade level 0

(5) One year or more ahead of chronological level on SAT or reading grade level one year or more ahead of age SUBTRACT 2

IV. Functional Intelligence Test

(1) An IQ of 49 or below or observed functioning at a level of one half or less of chronological age, trainable not educable ADD 8

(2) An IQ of 50-74 or observed functioning at a level of one half to three quarters of chronological age, educable ADD 6

(3) An IQ of 75-89 or observed functioning at a level of three quarters to the lower limits of chronological age, educable ADD 4

(4) An IQ of 90-109 or observed functioning at expected level for chronological age 0

(5) An IQ of 110 or higher or observed functioning at higher than expected level for chronological age SUBTRACT 2

V. Functional Emotional Abilities Test

(1) *Psychotic.* Extreme disorder resulting in a loss of contact with reality usually without physical cause or structural defect of the brain. Common symptoms are hallucinations and distorted behavior based on a private imaginary scheme of life. ADD 8

(2) *Autistic.* Extreme withdrawal with little or no personal interaction with others and avoidance of language as a means of communication. ADD 8

(3) *Hyperactive.* Extreme motor activity, destructively aggressive for no apparent cause. Appears to lack judgment or control of personal behavior ADD 8

(4) *Neurotic.* Moderate to minor disturbance(s) with some marked distorted views of the world such as inordinate fears (phobias) and inordinate desires (manias), which do not interfere seriously with social interaction with others nor result in personality disintegration. ADD 4

(5) *Normal.* Expected social behavior and social interaction of a multiply impaired child in an institutional or academic setting functioning at about his chronological age level.

(6) *Supportive personality.* Through well-balanced behavior and positive person-

ality characteristics contributes to the morale of the group and lessens care and restraint required of staff members. SUBTRACT 4

VI. Speech Problems Test

(1) *Noncommunicative.* Says no more than three words consecutively or together to persons other than nuclear family. ADD 6
(2) *Echolalic.* Repeats what is said. No original language. ADD 4
(3) *Speech defects.* Problems of articulation (sound production), of phonation (voice production) or of rhythm (stammering) ADD 2
(4) No speech problems. Functions at age level. 0

VII. Cerebral Palsy Test

(1) Grossly affected speech and/or motor activities ADD 6
(2) Moderately affected speech and/or motor activities ADD 4
(3) Mildly affected speech and/or motor activities ADD 2
(4) No history of cerebral palsy 0

VIII. Brain Damage Test

(1) Severe brain damage indicated on medical or EEG records ADD 6
(2) Moderate brain damage ADD 4
(3) Mild brain damage ADD 2
(4) No history of brain damage 0

IX. Epilepsy Test

(1) Under constant drug control ADD 8
(2) Occasional seizures with medication required ADD 6
(3) Infrequent seizures with no medication ADD 4
(4) History of seizures but none recently ADD 2
(5) No history of seizures 0

X. Mobility Test

(1) Immobile. Must be carried by others ADD 8
(2) Travels only with sighted guide ADD 6
(3) Travels independently only in familiar places ADD 4
(4) Travels independently in both familiar and unfamiliar places with aids like guide dogs or canes ADD 2
(5) Travels independently in both familiar and unfamiliar places using only own travel vision 0

Scoring Sheet for Severity Rating Scale Multiply Impaired Children (Experimental)

Test	*Score*
I. Vision score	________
II. Hearing	________
III. CA vs Academic Achievement	________
IV. IQ	________
V. Emotional	________
VI. Speech	________
VII. Cerebral Palsy	________
VIII. Brain Damage	________
IX. Epilepsy	________
X. Miscellaneous Physical	________
XI. Mobility	________

While this experimental scale leaves much to be desired, it should be useful in determining individual scores. These scores should be arrived at by group consensus of the most experienced personnel in the organization. Teachers should have at least ten years' experience teaching sighted and blind children with three-to-five years' experience in teaching blind MI children. The houseparent or other rating personnel should be equally well qualified if the individual's score is to be meaningful.

Scale's Use in Estimating Academic Load

☐ So much for individual scores. Can the Severity Rating Scale be used to estimate an overall academic load for an institution? I think it can. Mr. Woodcock has used his scale successfully at the Oregon State School for the Blind. Two other schools for the blind in the east, both long established and with excellent reputations, appear to have arrived pragmatically at similar estimates of their academic loads. In both cases, total school enrollment is about 300 students and the academic faculty numbers one-half of their permanent employees. School A reports on the AFB survey only eighty multiply impaired students, or 27 percent of its student body. Using the Severity Rating Scale on the AFB survey report, School A needs 24.5 teachers for their multiply-impaired students (Stanford Achievement Test scores were unavailable so half of the group was rated one year behind their chronological age, probably an under-estimate) and 20.5 teachers for its "normal" blind students for a total of 45 teachers needed. In the 1965-1966 school year there were 46 full-time teachers for an overall ratio of about one teacher to three students.

Scale's application at two schools

School B had many more multiply impaired students, 44 percent of their total enrollment. Using the Severity Rating Scale School B needed 43 teachers for its multiply-impaired (SAT scores were unavailable here too so the same approximation method was used) and 28 teachers for its "normal" blind students for a total of 71 teachers needed. In the 1965-66 school year there were 72 full-time teachers on the faculty for an overall ratio of about one teacher to two students.

Experience has obviously brought School A and School B to similar solutions to their staffing problems: about 50 percent are teachers, 29 percent are houseparents, and 21 percent are supporting staff (administrative, health services, and so on). Their estimates of the teaching load seem realistic, using their reports and the Severity Rating Scale. Whether their ratios of houseparents are as satisfactory is hard to say, but some superintendents feel that this need has been consistently underestimated, especially in view of the increasing number of multiply impaired children who require much more care. If the thesis is accepted that these children can be helped, their nonacademic care becomes crucial. Over the years concern has been voiced that visually impaired children who appear retarded are really understimulated. Perhaps more stimulation would cause the rate of retardation reported (80 percent in a national sample) to be lower among the multiply impaired. In any event, the use of the Severity Rating Scale for estimating nonacademic needs in a residential school might be a useful exercise.

Shortcomings

☐ Having said that the Severity Rating Scale appears to be useful in estimating academic load and possibly nonacademic needs, I hasten to add that it has all of the shortcomings of a rating scale as well. At their best all rating scales are rough approximations of what they purport to measure. They must be well constructed, administered carefully, and interpreted very carefully. Take, for instance, the matter of hearing, the most important second sense to people who have a visual loss. What constitutes a hearing loss for a blind or visually impaired person? Audiologists quibble about exact measure of normal loss for sighted persons in stated age groups, but something like a 30 decibel loss in the speech range is said to be adequate for everyday listening (speech reception) for a sighted adult. What about a blind adult? We maintained in a recent study on blinded veterans that a 15 decibel loss is adequate for speech reception. Even at this level of loss, many auditory cues are missing. Also, how important are the high-range frequencies (8,000-4,000 cps) for mobility? In those rare instances where research has considered this question, the high-frequency range seems important though seldom, if ever, are blind subjects given such tests.

Auditory testing

A recent study causes grave doubts to arise as to whether any auditory measurements are accurate enough in most studies anyway. North Carolina's Calibration Center recently reported that not one of 100 audiometers tested met the study's calibration specifications. Evaluations ranged from "slightly out of calibration" to "inoperable" with the majority being "grossly out of calibration" (1).

These are auditory measurement problems for adults and since hearing losses are age-related, little thought has been given to hearing losses among blind children. What tests should be given? What losses set as mild, moderate, and severe? (2). Should the hearing losses be correlated with the visual losses for an estimate of the effect on communication, perception, and mobility? These are questions that remain to be resolved and that are especially important in a multiply impaired population. The Severity Rating Scale has none of these subtleties and perhaps doesn't need them, for it asks for an expert observation of how the child performs with regard to his hearing. If the teacher, nurse, and house mother agree that the child appears to have a hearing problem because he *functions* that way, for their purposes he has a hearing problem whatever the clinicians say. Still in the interest of better treatment it would be good to know whether the loss is organic or not.

The Severity Rating Scale has other limitations too. The IQ is an "observed functioning IQ," for example. If the staff psychologist agrees with the teacher and the houseparent that a child appears to fall within a certain IQ range, formal tests might tell no more.

Scale Requires Refinement

☐ These criticisms of the Severity Rating Scale are made to stress certain points. It is an experimental scale that requires refinement. It requires considerable consensus among the staff dealing with the child about each rating. It needs to be given fairly often to take account of developments, which among the multiply impaired children can be spectacular. It requires in interpretation that the competence of the teacher or teachers dealing with such children be constantly assessed. (Wolf gives some favorable statistics on the preparation, experience, and motivation of such teachers in his monograph cited above.)

Proper interpretation of the Severity Rating Scale must include the roles played by the child's parents and close relatives, his facility in dealing with others. In short, like other rating scales, it is only one set of measurements among many in a complex situation. But it is useful. It structures judgments that might otherwise be unfair or overlooked. It is experimental and if used should be used with care, but it makes data on multiply impaired children meaningful in terms of what is needed to help them. It is a start anyway, a good start.

(1) U.S. Department of Health, Education, and Welfare, Public Health Service, National Center for Chronic Disease Control, Arlington, Va. 22203—HEW-R26.

(2) Impaired hearing is defined as "thresholds in excess of ±15 decibels re audiometric zero" in *Hearing Levels of Adults,* National Center for Health Statistics, Series II, No. 26, Sept. 1967

John K. Dupress Dies

John Kenneth Dupress, director of the Center for Sensory Research at the Massachusetts Institute of Technology since 1963 and one of the best known figures in work for the blind both in this country and abroad, died in Boston on December 28.

Mr. Dupress, who was blinded in World War II, received an AB degree with honors in psychology from Princeton University in 1949. He entered the field of work for the blind in 1958 when he joined the American Foundation for the Blind as director of technological research, and began to lay the basis for the work he had started to carry out at M.I.T.

Mr. Dupress was, perhaps, the moving figure in changing the emphasis in technological research for the blind from the devising of small aids and appliances to attempts to find the large and complex answers to the problems of information and mobility through practical application of the knowledge at the frontiers of science. He was especially interested in the ways that computer technology could be used by and for the blind, compressed speech, and in the evaluation and refinement of existing aids.

A Group Approach to Working With Families of the Blind

PAUL J. SCHULZ

Mr. Schulz is a counselor for the Braille Institute of America, Los Angeles, California.

One factor that frequently is not adequately emphasized in work with the blind is the family's role in the process. In many cases, the approach used is to deal directly with the individual without proper consideration of the family influence on his development or adjustment. The blind person, however, does not live in a vacuum. Whatever happens to him affects his family significantly. And the way the family reacts to him and to his blindness vitally affects his total outlook, his perception of himself, and his role as a family member.

Parental reactions to congenital blindness

The parental reactions to a child born blind and the subsequent handling of the child will determine to a great extent how he will adapt to his condition and to what degree he will become a normal and integrated member of the community. The various reactions can range from acceptance to overprotection to outright rejection. Parental attitudes are strong determinants in the normal or abnormal development of the child, particularly because of the greater than usual dependence of the blind child upon his parents. Thus, the importance of parental maturity and knowledge cannot be overemphasized.

Reactions to adventitious blindness

Similarly, the adult who loses his sight is greatly influenced by the attitudes and emotional reactions of the various family members. He must deal not only with his own feelings of loss, his fears and anxieties, but also with the feelings and anxieties of the family. In most cases, the shock of blindness comes to a family that is totally ignorant of the effects of the disability. It is a new and frightening experience, not only for the blinded person, but also for his family, who do not know how to cope with the special problems that attend blindness.

Families Often React to Blindness Inappropriately

☐ Members of the family, whether of a congenitally blind or an adventitiously blinded person, often react inappropriately to the handicap because of their own relative immaturity or instability. They may be so concerned with their feelings of guilt, their wish to be dependent, or with the satisfaction of other needs that they not only fail to contribute to the adaptation of the blind individual but in fact interfere with his own attempts toward adjustment. Where this is true, the basic problem can only be resolved by professional counselling or psychotherapy.

Lack of information may be primary cause

However, there are many problem situations in which lack of information is the primary cause of inappropriate family reactions. For example, a child born blind has the same natural curiosity about the environment as a sighted child. However, because he cannot see, he is unaware of what is just beyond

Author's note: I am indebted to Mrs. Faye P. Tolmach, M.S.W., for comments and suggestions from her own experience as a psychiatric social worker.

arm's length. The parents may allow him to remain passive because they do not realize that this child needs to be encouraged to investigate his environment tactually, and that his activity will increase as he literally "comes in touch" with unfamiliar objects in his surroundings. Another example is that as the blind child explores his environment, he frequently cannot avoid bumping into objects. The accidents which occur are usually minor, but often the parents are so fearful of serious injury that they prevent the child from carrying on his investigation. This greatly restricts the child's knowledge of his environment, and as he becomes older, he has less common experience to share with his peers.

The family of the recently blinded person may also react inappropriately because of lack of information. This family needs to be told that initially a blinded person will be unable to function as formerly because he no longer receives visual cues to his environment, and that there will be improvement as learning takes place. They need to understand that he may be slow and awkward in his movements, frequently bumping into objects and generally presenting a picture of relative helplessness. The family may be quick to offer help unnecessarily. Such an undesirable reaction prevents the blinded person from relearning at his own pace, serving to prolong his helpless condition.

Family must be prepared for emotional reactions of newly blinded person

In addition, it is imperative that the family of the newly blinded person be prepared for the emotional reactions he will have. He may be withdrawn, preoccupied with self-pity, overcome with anger and bitterness, tearful, or deeply depressed. If the family does not realize that he must express these feelings and that the healing process takes time, they may try to suppress his expression of feeling or minimize the problem, and thus greatly lengthen the period of emotional adjustment.

In situations such as these, providing the family with information concerning the emotional reactions, the training, and the rehabilitation of the blind can alleviate anxiety, overcome family conflicts, and provide an optimum climate for good development or adjustment. Such information can help the family see the effect of their own behavior on the blind person's adjustment, and help them deal with their own pain. It can counteract the distortions about the blind person's helplessness, providing the family with a new hopefulness and awareness of his potentialities. It can also be the basis for determining the realistic limitations of blindness, so that family members will be able to offer help when needed in a manner calculated to bring greater independence and freedom. This information should be presented on a very practical level, geared to the needs of the specific families. It can be imparted individually or in a group situation.

A Program for Providing Information to the Families

□ In order to provide this information, the Braille Institute of America recently held a series of meetings for families of the blind. In keeping with the above concepts, the material was presented on a practical level to help family members understand and cope with the problems of blindness. It was designed to show how a blind person can and does function, what special aids are at his disposal, and how he adapts to his environment. In addition, the material demonstrated to the families their appropriate role in the development or adjustment of the blind family member. Some of the meetings were primarily lectures, with opportunity for questions and discussion at the conclusion. Others allowed for more free discussion and application to specific personal situations during the course of the lectures. One meeting was primarily discussion, and at the final meetings families were invited to direct questions and ideas to a panel. The varied structure of the meetings also gave us an opportunity to consider the relative effectiveness of methods.

Topics discussed

The first five meetings were designed for families of blind children. Topics included were orientation and mobility, emotional problems of the blind child, techniques of daily living, and recreation. Following these, we held four meetings for families of blind adults. In these we discussed similar material, as applied to adults and their families. The specific topics were orientation and mobility, techniques of daily living, and the process of adjustment to blindness. The final meeting, for a different group of families, will be described in detail later.

Two Basic Problems

☐ The two basic problems to which we addressed ourselves in these meetings were the *physical adaptation* to the lack of sight, and *emotional adjustment* to the fact or onset of blindness. While we recognize that these aspects are inseparable in the adjustment process, we found it useful arbitrarily to separate the information into these categories. In the first classification, physical adjustment, we considered orientation and mobility, techniques of daily living, and recreation to be important for the family's understanding and knowledge of the blind person's capabilities.

Physical adjustment

Acquisition of orientation and mobility skills is imperative for the blind person's achievement of relative independence in travel. The speakers discussed deficiencies in orientation and mobility found among the congenitally blind, the responsibility of the family in teaching good orientation concepts, and orientation techniques used in both indoor and outdoor travel. In addition, they described the types and uses of canes. Special emphasis was placed on long cane techniques when travelling in various types of neighborhoods, and the means of making efficient use of bus travel. Emphasis on orientation techniques was important because many congenitally blind individuals and their families develop the concept that they are good travelers, based on their ability in familiar surroundings. However, they lack many of the basic tools necessary for travelling in unfamiliar areas, and they and their families need to be aware of this fact.

During a discussion one of the speakers stressed the fact that orientation training should begin much earlier than is usual. He pointed out that many congenitally blind children lack such concepts as parallel, diagonal, and perpendicular, and he demonstrated with tactual models the methods by which the parents can teach these concepts.

Since many families do not know how to guide a blind person effectively, demonstrations were also given in the use of a sighted guide. The final meeting on mobility included a film demonstrating travel techniques.

In addition to orientation and mobility, information on techniques of daily living cannot be overlooked in promoting optimum adaptation to blindness.

The families need to be aware that these techniques and the special aids available are important in developing independence. The speaker emphasizd this point, while describing means of improving personal grooming habits and proper methods of eating. She also displayed some special aids ranging from writing devices to means of identifying clothing. She encouraged the family to help their blind member obtain and use these methods and devices.

Recreational and educational experiences essential

Recreational and educational experiences are essential if the blind person is to take his place in the sighted community. The Braille Insititute integrates blind and sighted persons in its recreational program wherever possible. For example, each year the Institute conducts a summer camp for blind and sigsted youngsters. The speaker on recreation emphasized this philosophy as well as apprizing the families of the recreational programs available, such as bowling, horseback riding, and swimming. He also stressed his belief that each recreational activity should provide a learning experience. He presented this material not only to familiarize the families with our recreational program, but also to make them more sensitive to the blind person's need for varied experiences and regular contact with sighted individuals.

Emotional adjustment

In the second category, emotional adjustment, the family of a blind child has greater responsibility than does the family of an adventitiously blinded adult. For this reason, information presented to these families emphasized the importance of adequate training of the child during the preschool years. The results of tests indicate that blind children are often inferior to sighted children in motor development. This "retardation" is frequently due to a lack of opportunity to experience the environment and can often be prevented by providing the child with a wider range of experience and by stimulating his natural curiosity about the environment.

The family of the adventitiously blinded person also plays a crucial role in his emotional adjustment. For this reason it is imperative that they understand the experience and feelings of a person who has lost his sight. The speaker on this topic stressed the heavy reliance an adult places on his sense of sight as a result of his early learning and experience. Thus, a blinded person finds almost every area of his life affected by its loss. In addition, a portion of the meeting was devoted to the loss suffered by the family. The speaker verbalized the shock to the family as well as to the blinded person, discussing specific ways in which they could deal with their own feelings as well as help the blinded family member cope with his emotions.

One Meeting Was Question and Answer Session

☐ The final meeting was held in another geographical area for families of blind children. The meeting was structured as a three-hour question-and-answer period between family members and a panel consisting of the director of professional services, the youth director, a home teacher, a mobility instructor, and a counselor (the writer). The ages of children represented ranged from four months to twelve years. Participation of various family members was quite animated, indicating their concern with the special problems encountered in raising a blind child. Some of the questions were quite specific and related to special problem situations. For example, one question concerned a girl who was generally very active but feared being taken into the deep end of a swimming pool.

The major part of the evening was devoted to questions of more general interest. One such question dealt with a behavior problem of two blind children in a family of eight. These children were using their blindness as an excuse for not doing their share of the household chores. The siblings reinforced this behavior by doing their tasks for them, e.g., hanging up their clothes. The panel discussed many aspects of the problems of "special consideration," but concluded that these two blind children should not be given special concessions in this instance but wherever possible should do their share with the siblings. Other problems considered were mobility needs, the best age for initiating cane travel, what to do about "blindisms," and ways of providing adequate sex education for the blind child. At the close of the meeting a number of pamphlets dealing with various aspects of blindness and its relation to the total family situation were made available to these parents.

Panel structure evoked greatest audience response

Although proper evaluation of the various types of meetings used in this family series requires consideration of various factors, such as number of persons present, the particular family members participating, and the special ability of the leader or moderator, the reaction during and after the various meetings seems to indicate that the panel structure evoked greater response from the audience than did many of the other meetings. It is possible that since there was no initial lecture period the family members were able to proceed more directly to the problems that were of primary importance to them.

However, the choice of method should be determined to some extent by the degree of sophistication of the members. For very uninformed families the free discussion method is limited in that it does not provide structured and comprehensive presentation of the important material. However, our family members had varying degrees of knowledge about the effects of blindness, so that free discussion was the one method of presentation that would insure that the material covered would be helpful and relevant for the individual families. They could ask questions, make comments, and thus apply the content to their specific needs. In this method, the amount of discussion can give some indication of the degree to which the material has been helpful. It is also a means of learning what other topics would be of interest.

We selected a limited range of topics which we considered essential for these families. However, many other areas could be equally valuable when related to the specific individuals and families involved. Other topics to be discussed might include educational problems, vocational opportunities, placement possibilities, opportunities for social contacts, and the special problems of the aged blind.

While selection of presentation method is important, the essential point is that whatever the method used, assistance and information must be provided for the families who are daily attempting to cope with and adjust to the problems of blindness. The impact of such information and its benefit to the family as well as to the blind person, can be of inestimable value.

Directory of Summer Courses in Education of Visually Handicapped Children—1968

Once again we are pleased to bring the list of summer courses in education of the blind and visually handicapped to the attention of educators in this field. In this report, information is presented about such courses and workshops based on reports sent to the American Foundation for the Blind by these colleges and universities. This list cannot be considered complete because other colleges and universities may plan offerings in this field. Endorsement or approval is not implied by inclusion in the listing.

Interested persons are urged to write early to appropriate schools for detailed information about application procedures, admission requirements, subjects to be covered, class sizes, fees, and the relation of courses to certification requirements. Many of these schools have scholarships or stipends available to assist students in attending summer courses. The information in the right-hand column of the following table will serve as a guide for persons who may wish to inquire about such financial assistance.

In addition, the American Foundation for the Blind welcomes applications for summer stipends of $200 each. Applicants must be administrators, supervisors, or teachers who will be employed full time in educational programs for blind and visually handicapped students for the 1968-69 academic year. Consideration will be given to administrators planning to attend any well-planned sequence of courses which will strengthen skills for work with visually handicapped children. The deadline for receipt of completed applications, which must be cleared in advance through the appropriate university, is May 1, 1968. For further information and an application form, write to William Feldman, Director, Personnel and Training Service, American Foundation for the Blind, 15 West 16th Street, New York, New York 10011.

This Directory was compiled by William Feldman, Director, Personnel and Training Service, American Foundation for the Blind.

Key:
U = Undergraduate
G = Graduate
nr = Not reported

University	*Catalogue Number*	*Title of Course*	*Dates*	*Level*	*Number Credit Hours*	*Tuition Per Hour*	*Scholarships Available*
University of Arizona							
Paul Starkovich, Assistant Professor Department of Special Education University of Arizona College of Education Tucson, Arizona 85721	Ed. 213	Education of the Visually Handicapped	6/17-7/20	U & G	3	$16.00	yes

University	*Catalogue Number*	*Title of Course*	*Dates*	*Level*	*Number Credit Hours*	*Tuition Per Hour*	*Scholarships Available*
California State College at Los Angeles Harry V. Wall, Ph. D. Chairman Department of Special Education California State College at Los Angeles 5151 State College Drive Los Angeles, California 90032	*Ed. 430	Mobility Instruction for Teachers of the Blind	6/17-8/31	G	4	$13.25	yes
	*Ed. 445	Observation in Special Education	6/17-8/31	G	1	$13.25	yes
	*Ed. 447	Advanced Mobility Instruction for Teachers of the Blind	6/17-8/31	G	5	$13.25	yes
	* Limited to students previously accepted in Orientation and Mobility Program at C.S.C.L.A.						
San Francisco State College Georgie Lee Abel, Professor of Education Department of Special Education San Francisco State College 1600 Holloway San Francisco, California 94132	Ed 121.11	Clinical Practices: Visually Handicapped	6/24-7/12	U & G	1	$19.75	Scholarships contingent upon Office of Education awards.
	Ed 161.1	Structure and Function	6/24-8/2	nr	2	$19.75	
	Ed 161.2	Education of the Visually Handicapped	6/24-8/2	U & G	2	$19.75	
	Ed 161.3	Partially Seeing Children	7/15-8/2	nr	2	$19.75	
	Ed 161.4	Beginning Braille	6/24-8/2	U & G	3	$19.75	
	Ed 161.5	Advanced Braille	6/24-8/2	U & G	2	$19.75	
	Ed 161.6	Teaching Blind Children	6/24-7/12	U & G	3	$19.75	
	Ed 260.6	Advanced Problems in Education of the Visually Handicapped	6/24-8/2	U & G	3	$19.75	
	Ed 261.3	Advanced Problems in Education of the Visually Handicapped	6/24-7/12	G	3	$19.75	
	Ed 261.8	Orientation and Mobility Skills for Blind Children	6/24-7/12	G	3	$19.75	
	Ed 261.14	The Counseling Process and the Teacher of Children of Multiple Handicaps	7/15-8/2	G	3	$19.75	
	*Ed 261.15	Creative Expression for Visually Handicapped Children with Additional Impairments	6/17-6/21	G	1	$19.75	
	* Registration encouraged by June 1 (by permission).						
Colorado State College Dr. Tony D. Vaughan, Chairman Department of Special Education Colorado State College Greeley, Colorado 80631	SPED 241	Survey of Education of the Visually Handicapped	6/10-8/16	U & G	3	$6.50 per qt. hr. Colorado residents $15.50 per qt. hr. Out-of-state residents (Fees are subject to change by Board of Trustees.) (quarter hour)	Application has been made for Summer Traineeships under Public Law 85-926, as amended.
	SPED 243	Beginning Braille	6/10-8/16	U & G	3		
	SPED 244	Elementary Methods for the Blind	6/10-8/16	U & G	3		
	SPED 343	Advanced Braille	6/10-8/16	G	3		
	SPED 344	Practicum with Visually Handicapped	6/10-8/16	nr	Max 15		
	SPED 345	Principles of Orientation and Mobility for the Blind	6/10-8/16	G	3		

University	*Catalogue Number*	*Title of Course*	*Dates*	*Level*	*Number Credit Hours*	*Tuition Per Hour*	*Scholarships Available*
Southern Connecticut State College Arnold Fassler, Ed. D. Professor and Chairman, Department of Special Education Southern Connecticut State College 501 Crescent Street New Haven, Connecticut 06515	Sp. Ed. 550	Institute on Vision	6/24-8/2	U & G	1	$20.00	no
Catholic University of America Max G. Frankel, Ph. D. Director, Education of the Exceptional Program School of Education Catholic University of America Washington, D. C. 20017	S627	Education and Care of the Visually Handicapped	6/27-8/8	U & G	2	$60.00	yes
	S628	Mental, Social and Vocational Adjustment of the Handicapped	6/27-8/8	U & G	2	$60.00	no
	S630	Braille Technique	6/27-8/8	U & G	2	$60.00	no
	S631	Advanced Braille	6/27-8/8	U & G	2	$60.00	no
	S632	Anatomy, Physiology, and Hygiene of the Eye	6/27-8/8	U & G	2	$60.00	no
The Florida State University Dr. Gideon R. Jones, Coordinator, Program for Visual Disabilities Department of Special Education and Rehabilitation The Florida State University College of Education Tallahassee, Florida 32306	SER 341	Social and Emotional Problems of Blindness	6/11-8/23	U	4	$10.00 per qt. hr. Florida residents $25.00 per qt. hr. Out-of-state residents (quarter hours)	no
	SER 405	Survey of Special Education	6/11-8/23	U & G	3		yes
	SER 411	Educational Assessment of Exceptional Children	6/11-8/23	U & G	3		yes
	SER 442	Braille	6/11-8/23	U & G	4		yes
	SER 443	Materials and Methods in Teaching the Visually Handicapped	6/11-8/23	G	4		yes
	SER 444	Mathematics for the Visually Handicapped	6/11-8/23	G	4		yes
	SER 445	Orientation and Mobility for the Classroom Teacher	6/11-8/23	nr	4		yes
	SER 447	Problems of Teaching the Visually Handicapped	6/11-8/23	G	5		nr
Northern Illinois University Ramon Kuhns, Coordinator—Education of the Visually Limited Department of Special Education Northern Illinois University DeKalb, Illinois 60115	Sp. Ed. 440	Introduction to Education of the Visually Handicapped	6/17-8/8	U & G	3	$ 9.00 Illinois residents $23.00 Out-of-state residents	nr
	Sp. Ed. 442	Beginning Braille	6/17-8/8	U & G	3		nr
	Sp. Ed. 445	Advanced Braille	6/17-8/8	U & G	3		nr
Illinois State University Dr. Evelyn Rex, Assistant Professor Department of Special Education Illinois State University Fairchild Hall Normal, Illinois 61761	Bio. Sci. 382	The Eye—A Laboratory and Clinical Study	6/17-8/8	U & G	2	$ 9.00 Ill. residents, per sem. hr. $72.50 out-of-state students, 5-9 hrs.	yes
	Educ. 350	Education of the Partially Seeing	6/17-8/8	U & G	2		yes
	Educ. 351	Education of the Blind	6/17-8/8	U & G	3		yes
	Educ. 352	Braille I	6/17-8/8	U & G	2		yes
	Educ. 356	Braille II	6/17-8/8	U & G	2		yes

University	*Catalogue Number*	*Title of Course*	*Dates*	*Level*	*Number Credit Hours*	*Tuition Per Hour*	*Scholarships Available*
Illinois State University (Continued)							
	Educ. 393	Orientation & Mobility of the Visually Handicapped for the Special Teacher	6/17-8/8	U & G	2		yes
	Educ. 447	Coordinating Educational Programs for Exceptional Children	6/17-8/8	G	2		yes
	Psyc. 346	Psychology of Exceptional Child	6/17-8/8	U & G	2		yes
Boston College John R. Eichorn, Ed. D., Coordinator Special Education and Rehabilitation Boston College 96 College Road Chestnut Hill, Massachusetts 02167	S Ed 297 I, III, IV	Practicum for Mobility Specialists. ONLY OPEN FOR PERIPATOLOGY STUDENTS	6/24-8/2	G	2 & 3	$50.00	no
	S Ed 385	Orientation and Mobility for Teachers of the Visually Handicapped	6/24-8/2	G	3	$50.00	no
	S Ed B 293	Orientation to Work With the Blind	6/24-8/2	G	3	$50.00	no
Michigan State University Mrs. Lou Alonso, Coordinator—Programs for the Visually Handicapped Department of Elementary and Special Education Michigan State University 213 Erickson Hall East Lansing, Michigan 48824	ED 424	Education of Exceptional Children	6/17-7/24 7/28-8/30 6/17-8/30	U & G	3	Full-time, 10 or more credits, Michigan residents, $119.50; Out-of-state residents, $341.50. Part-time, Michigan residents, 7-9 credits, $83.00; 4-6 credits, $57.00; 1-3 credits, $36.00 Part-time, Out-of-state residents, 7-9 credits, $235.00; 4-6 credits, $172.00; 1-3 credits, $118.00	yes
	ED 430 A Sec. 1	Educational Procedures for the Visually Handicapped	6/17-7/24	U & G	3		yes
	ED 430 A Sec. 2	Educational Provisions for the Blind	6/17-7/24	U & G	3		yes
	ED 430 A Sec. 3	Braille	6/17-7/24	U & G	3		yes
	ED 882	Organization and Administration of Special Education Classes	6/17-7/24	G	3		nr
	ED 882	(Workshop) Orientation and Mobility Skills for Blind Children	7/29-8/2	U & G	2		yes
	ED 882	Seminar in Special Education Research	6/17-7/24	G	3		nr
	PSL. 323	Physiology, Anatomy and Hygiene of the Eye	6/17-7/24	U & G	3		yes
	MUS 8	Music for Exceptional Children	6/17-7/24	U & G	3		yes
University of Minnesota Mrs. Glenda Martin, Instructor Department of Special Education University of Minnesota 108 Pattee Hall Minneapolis, Minnesota 55455	Ed CI 115	Introduction to the Education of Visually Handicapped Children	6/17-7/19	G	3	$76.50 per summer session for 6-9 credits	no
	Ed CI 118	Education of Visually Handicapped Children (Methods)	6/17-7/19	G	3		no

University	*Catalogue Number*	*Title of Course*	*Dates*	*Level*	*Number Credit Hours*	*Tuition Per Hour*	*Scholarships Available*
Jersey City State College Dr. Seymour Lemeshow, Chairman Department of Special Education Jersey City State College 2039 Kennedy Boulevard Jersey City, New Jersey 07305	*10/649	Methods of Teaching Visually Handicapped	6/27-8/9 (subject to change)	U & G	3	$16.50 N.J. residents or non-residents teaching in N.J. $18.50 out-of-state residents.	**
Teachers College, Columbia University Dr. Robert Bowers Coordinator of Program in Education of Blind and Visually Impaired Department of Special Education Teachers College, Columbia University 525 West 120th Street New York, New York 10027	TE4773a	Technology in the education of the blind and visually impaired (Special Study Institute)	8/12-8/23	G	0 or 2	$65.00	yes
	TE3700s	Survey of the blind and visually impaired population	7/1-8/9	G	2	$65.00	yes
	TE3710s	Educational implications of visual functioning	7/1-8/9	G	2	$65.00	yes
	TE4772s	Orientation and mobility skills for teachers of the blind and visually impaired (Special Study Institute)	7/1-8/9	G	0 or 6	$65.00	yes
	TE4770s	Problems in the education of the blind and visually impaired	7/1-8/9	G	1-4	$65.00	yes
The Ohio State University Loetta L. Hunt, Associate Professor Department of Education College of Education The Ohio State University 373 Arps Hall 1945 North High Street Columbus, Ohio 43210	Ed. 588.32 or Ed. 710	Student Field Practicum	6/18-7/24	U & G	4-6	$9.00	yes
	Ed. 666	Beginning Braille	6/18-7/24	U & G	3	$9.00	yes
	Ed. 667	Advanced Braille	7/25-8/23	U & G	3	$9.00	yes
	Ed. 668	Principles & Methods in the Education of Partially Seeing Children	6/18-7/24	U & G	3	$9.00	yes
	Ed. 669	Practicum in Educational Planning for Partially Seeing Children	7/25-8/23	U & G	3	$9.00	yes
	Ed. 715	Education of Multi-handicapped Children	6/18-7/24	U & G	3	$9.00	yes
	Ed. 717	Educational Implications of Visual Impairments	6/18-7/24	U & G	3	$9.00	yes
	Ed. 719	Theory and Practice in the Education of Blind Children	7/25-8/23	U & G	3	$9.00	yes
	Psy. 570	Exceptional Children: General Survey	6/18-7/24	U & G	3	$9.00	yes

* Subject to administrative approval.

** May be available from the Department of Special Education, Trenton, N.J., for qualified candidates.

University	*Catalogue Number*	*Title of Course*	*Dates*	*Level*	*Number Credit Hours*	*Tuition Per Hour*	*Scholarships Available*
The Ohio State University (Continued)							
	Psy. 858	Psychological Problems in Physical Disability	6/18-7/24	G	3	$9.00	yes
	Psy. 859	Seminar in Psychology of Exceptional Children & Adults	6/18-7/24	G	3	$9.00	yes
Portland State College Madge Leslie, Assistant Professor of Education School of Education Portland State College P. O. Box 751 Portland, Oregon 97207	Ed 407-507	Implications of Vision Problems of Children	6/17-7/26	U & G	3	Scholarships contingent upon Office of Education awards $123.00 qt. Undergraduate $143.00 qt. Graduate $ 15.50 cr. hr.	yes
	Ed 407-507	Principles and Procedures of Education of Visually Handicapped Children	6/17-7/26	U & G	3		yes
	Ed 407-507	Braille Transcribing	6/17-7/26	U & G	3		yes
	Ed 407-507	Effective Living Skills	6/17-7/26	U & G	3		yes
	Ed 407-507	Orientation Mobility	6/17-7/26	U & G	3		yes
	Ed 407-507	Advanced Braille	6/17-7/26	U & G	3		yes
	Ed 407-507	The VH Child from Birth to Age Seven	6/17-7/26	U & G	3		yes
	Ed 466	Introduction to Education of Visually Handicapped	6/17-7/26	U & G	3		yes
	Ed 509	Student Teaching of VH	6/17-7/26	U & G	3		yes
	Ed 507	Advanced Procedures in Education of VH	6/17-7/26	U & G	3		yes
	Ed 507	Advanced Institute Creative Teaching for Teachers of Handicapped Children	6/10-6/14	G	2-3	$15.50	
Kutztown State College Mary E. Lovett, Head, Department of Special Education Kutztown State College Kutztown, Pennsylvania 19530	SpEd 151	Theory and Techniques of Reading and Writing Braille I	6/24-8/2	U	3	$12.50	no
	SpEd 160	Methods of Evaluating the Visually Handicapped	6/24-8/2	U	3	$12.50	no
	SpEd 306	Arts and Crafts for the Visually Handicapped	6/24-8/2	U	3	$12.50	no
University of Pittsburgh Dr. Ralph L. Peabody Coordinator, Education for the Visually Handicapped, Department of Special Education and Rehabilitation University of Pittsburgh 160 North Craig Street Pittsburgh, Pennsylvania 15213	200	Survey of Special Education	6/25-8/15	G	2	$16.00 Pennsylvania residents $47.00 Out of-state residents	no
	211	Education of the Visually Handicapped (Continuation of course from previous summer)	6/25-8/15	G	4		no
	223	Practicum 1 (Community Resources)	6/25-8/15	G	1		no

It is anticipated that a special workshop will be offered in connection with the Pennsylvania Department of Public Instruction. For further information write to Dr. Ralph L. Peabody at the above address.

University	*Catalogue Number*	*Title of Course*	*Dates*	*Level*	*Number Credit Hours*	*Tuition Per Hour*	*Scholarships Available*
George Peabody College for Teachers Dr. Verna Hart, Acting Coordinator* Programs for Education of Children with Visual Disability Department of Special Education George Peabody College for Teachers Box 326 Nashville, Tennessee 37203		*	**				
	S.E. 250	Anatomy, Physiology and Hygiene of the Eye	6/10-8/16	U & G	2	$37.50	yes
	S.E. 251	Educational Procedures for Visually Handicapped Children	6/10-8/16	U & G	2	$37.50	yes
	S.E. 252	Student Teaching of Visually Handicapped Children	6/10-8/16	U & G	1-2	$37.50	yes
	S.E. 253	Braille Reading and Writing	6/10-8/16	U & G	2	$37.50	yes
	S.E. 254	Braille Teaching Procedures	6/10-8/16	U & G	2	$37.50	yes
	S.E. 255	Orientation and Mobility for Visually Handicapped Children	6/10-8/16	U & G	2	$37.50	yes
	S.E. 351	Advanced Educational Procedures for Visually Handicapped Children	6/10-8/16	G	3	$37.50	yes
	S.E. 352	Field Work in Special Education of the Visually Handicapped	6/10-8/16	G	3	$37.50	yes
	S.E. 353	Readings and Research in Special Education of the Visually Handicapped	6/10-8/16	G	1-4	$37.50	yes

* Please write for information on courses and institute in the Education of Deaf-Blind and Multiply Handicapped Children.

** Catalogue is not correct. This is latest information on dates.

University	*Catalogue Number*	*Title of Course*	*Dates*	*Level*	*Number Credit Hours*	*Tuition Per Hour*	*Scholarships Available*
The University of Texas at Austin Dr. Natalie C. Barraga, Associate Professor Department of Special Education The University of Texas at Austin Sutton Hall 205 Austin, Texas 78712	Ed. P. 365.3	Preparation of Audio and Visual Materials	7/18-8/27	U	3	$ 25.00, Texas residents, 6 hours, 6 weeks $100.00, Out-of-state students, 6 hours, 6 weeks	yes
	S.Ed. 371.3	Visual Problems of Exceptional Children	6/6-7/16	U & G	3		yes
	S.Ed. 379.6	Seminar in Visually Handicapped—Braille Reading & Writing	6/6-7/16	U & G	3		yes
	S.Ed. 384.1	Problems in Use of Braille Codes—Advanced	6/6-7/16	G	3		yes
	S.Ed. 384.2	Psychological and Social Problems of Visual Disability	7/18-8/27	G	3		yes
	S.Ed. 394	Internship in Visually Handicapped	6/6-8/27	G	3		yes
	S.Ed. 395	Research in Visually Handicapped	6/6-8/27	G	3		yes
	Workshop	Orientation and Mobility for Teachers (By application only)	5/27-6/14	U & G	3		yes

University	*Catalogue Number*	*Title of Course*	*Dates*	*Level*	*Number Credit Hours*	*Tuition Per Hour*	*Scholarships Available*
University of Houston Dr. Alfred H. Moore, Coordinator of Special Education, Department of Curriculum and Instruction University of Houston 3801 Cullen Boulevard Houston, Texas 77004	SPE 435	Survey Course in Education of Exceptional Children	6/3-7/12	U & G	3	Write to registrar for information.	no
	SPE 436	Educational Appraisal of Exceptional Children	6/3-7/12	U & G	3		no
	SPE 460	Visual Problems of School Age Children	6/3-7/12	U & G	3		no
	SPE 461	Principles and Methods in Braille	6/3-7/12	U & G	3		no
	SPE 491	Field Experience Houston Center for the Blind	6/3-7/12	U & G	3		no
	SPE 630 S	Advanced Braille and/or Practicum with the Blind	6/3-7/12	G	3-6		no
Brigham Young University Mrs. Ruth H. Craig, Supervisor of Courses on Visually Handicapped Department of Teacher Education Brigham Young University Provo, Utah 84601	Zoology 374	Pathology of the Organs of Vision	6/17-7/19	U	2	From $65.00/2 hrs. to $300/12 hrs. Less for L.D.S. Church Members.	Probably no scholarships.
	Teacher Ed. 462	Introduction to Teaching the Visually Handicapped	6/17-7/19	U	2		
	Teacher Ed. 463	Standard English Braille	6/17-8/2	U	3		
	Grad. Ed. 562	Problems and Methods in Education of the Visually Handicapped	7/20-8/22	G	3		
	Grad. Ed. 563	Advanced Braille	7/20-8/22	G	2		
	Grad. Ed. 568C	Observation and Participation with the Visually Handicapped	6/17-7/19 or 7/20-8/22	U or G	2 2		
	Grad. Ed. 569C	Practicum: Student Teaching with the Visually Handicapped	6/17-7/19 or 7/20-8/22	G	2-4		

Workshop: to be announced.

University	*Catalogue Number*	*Title of Course*	*Dates*	*Level*	*Number Credit Hours*	*Tuition Per Hour*	*Scholarships Available*
Old Dominion College Dr. Bobbe Lytle Davey, Chairman, Division for the Visually Impaired Department of Special Education Old Dominion College Child Study Center Hampton Blvd. & 45th St. Norfolk, Virginia 23508	Ed. 472	Survey of the Education of the Exceptional Child	6/17-8/14	G	3	$18.00	yes
	Ed. 479	Practicum in Special Education (Visually Impaired)	6/17-8/14	G	6	$18.00	yes
	Ed. 533	Pupil Evaluation: Assessment and Recommendations	6/17-8/14	G	3	$18.00	yes
	Ed. 557	Procedures for Teaching the Visually Impaired	6/17-8/14	G	3	$18.00	yes
	Ed. 576	Orientation and Mobility for Blind Children	6/17-8/14	G	3	$18.00	yes
	Ed. 577	Nature and Needs of Visually Impaired Children	6/17-8/14	G	3	$18.00	yes
	Biol. 551	Physiology and Diseases of the Eye	6/17-8/14	G	3	$18.00	yes
University of Virginia Don L. Walker, Coordinator, Training Program, Visually Impaired Departmental Committee, Education for Exceptional Children University of Virginia Peabody Hall Charlottesville, Virginia 22903	Education 149	Orientation and Mobility: Principles and Practice	6/12-7/1	U & G	3	$12,00, Va. residents $24.00 Out-of-state students	no

Adapting Visual Aids for the Blind

FRANK V. HOLAN

Mr. Holan is a French instructor at Windham College, Putney, Vermont

I teach French at Windham College, Putney, Vermont. In the fall of 1966, a student I shall call Homer Legaillard signed up for LF-111 (Intermediate French), prerequisite for which is either LF-101/102 (Basic French) or at least two years of French in high school.

Since Homer signed up for the course in advance, there was no reason for him to appear on registration day, and so it was not until the first day of class, when I first consciously set eyes on him, that I realized he was blind.

Blind student in class where visual aids are used

The implications of this fact were clear. I use visual aids as often as most and oftener than some; if Homer was to remain in my class, I would have to modify the course enough to make it intelligible to him. This would have to be done without delay; after all, the semester had already begun, and there were only forty-two class periods in the semester.

It must not be supposed that Homer was completely without resources—the linguistic equivalent, so to speak, of the Little Match Girl. He knew braille, and had provided himself with the braille edition of the text we were using—Harris and Leveque, *Intermediate Conversational French;* he had his own tape recorder, portable typewriter, and braille-writing machine, all of which he could operate.

Substituting Tactual For Visual Stimuli

☐ I reasoned that anybody who can handle braille could probably identify just about any clearly-defined shape by touch, and hence, in order to enable Homer to follow lessons involving visual aids, all that was needed was to provide him with a lap-sized copy of the same picture or chart on the class blackboard, on which texture and shape would substitute tactile for visual stimuli.

One type of drill planned for his class centered on a family of six people—father, mother, older boy, younger boy, older girl, and younger girl—represented by stick figures. To insure positive recognition, each member of the family has a distinctive hair-do: the father is bald; the older boy displays the sheepdog look; the younger girl has a pony-tail; and so on. These people, together with a cat, a dog, and an occasional mouse, carry on various activities, either in one of the simultaneously visible rooms of the house, in the adjoining garden, or in the garage.[1]

The presentation of this assemblage of people against this particular background provides a point of departure for *ad hoc* dialogues exploiting all question-answer structures possible in the language. When the student can manipulate all of these without hesitation, he is ready to transfer this skill from the imaginary world of the picture to the real world; when he can manipulate the same structures in the real world, he is ready to write essays and present *comptes rendus*, which are, after all, only question-answer dialogues with the questions left out.

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[1] It might be supposed that this rather simple-minded device is better suited to the experience and inclinations of the third grade than to those of college freshmen and sophomores. However, on the basis of informal observations made over a period of time, I believe that the high point of resistance to learning on the grounds of unsuitably childish pedagogic devices tends to occur in the junior year of high school, and that thereafter such resistance declines sharply. *Unless ye become as little children, ye shall not enter into the Kingdom of Heaven.*

Putting information into three dimensions

The problem of transferring the information provided by the original two-dimensional picture to a three-dimensional copy presented certain difficulties. Although the arrangement of the rooms within the house, the location of the house, the garden, and the garage would remain fixed, the characters would have to change location in the picture between one day's session and the next—*on* the roof, *in* the cellar, *under* the tree, and so on. Moreover, some means would have to be devised to indicate certain actions or states of being which, though easily represented in a picture, are not normally presented in any other way.

Adaptation of One Specific Visual Aid

☐ What might, for lack of a more graceful term, be known as the "tactile aid" started out as a piece of 18″ x 24″ x ⅜″ plywood. In order to insure maximum exploitation of the display space available, all information to appear on it was designed to fit into one of three categories: low-relief, high relief, and in-the-round, or free-standing. Some details:

(1) The outlines of the house, garden, garage, and the rooms within the house were marked out in low relief with soft iron wire and fastened down with staples.

(2) The characters were represented by free-standing wooden pegs, shaped to suggest the heads of the people in question, and designed to be inserted into one-half inch holes in the plywood. The final effect was not so much that of a series of realistically-carved heads as that of a collection of chessmen, each designed to allow for rapid identification by means of touch: the bald-headed father was represented by a smooth, round knob; the shaggy-haired older boy, by a peg topped with a bit of fleece; the short-haired younger boy by Jerry-Cruncher spikes, and so on.

(3) Most activities were also represented by free-standing pegs, these representing an object normally manipulated in the course of a given activity. Thus, cooking was indicated by a kitchen fork; reading by an open book; play (for a girl) by a doll; play (for a boy) by a toy truck, and so on. As with the characters, an attempt was made to suppress realism in favor of clarity of tactile stimulus—for example, the saw representing (what else?) the act of sawing wood was simply a flat blade with a few big teeth along one edge.

(4) The board itself was liberally perforated with holes one-half inch in diameter, to allow representation of any of the characters carrying on any activity in the repertory in any reasonable place. Thus, a smooth knob and a hammer just above the house indicated that the father was repairing the roof; a bristly knob and a book in the bath indicated that the younger boy was reading in the bathtub, etc.

(5) Furniture, trees, and background were indicated in high relief by means of silhouettes cut out of one-eighth inch composition board. Fastened to the plywood with short tacks, they were easily applied and as easily removed.

(6) Certain activities and states of being which were difficult to express with carved shapes were handled in another way. The comic-strip convention whereby a dotted line between an eye and an object indicates that the possessor of the eye is looking at the object was supplied by an arrow made of bent aluminum sheeting, and so on.

Devices Used for Testing

☐ The problem of substituting tactual for visual stimuli also had to be faced for testing.

One of the devices used for testing oral comprehension was the four-possibility multiple-choice test familiar to devotees of ALM[2]: as the instructor reads the problem aloud, the student circles A, B, C, or D on an answer-sheet to indicate his choice of the first, second, third, or fourth response.

If it had been planned to read each problem and its four possible responses once, Homer could have coped with this type of test without special equipment. However, since it was to be read at least twice, it was evident that he would be at a considerable disadvantage: he could not, like the rest of the class, visually check his first choice against a second reading. The problem therefore consisted of finding some means of allowing Homer to put down a tentative answer, which he could check by touch.

The blank form normally used for this test consisted of the grouping A B C D, repeated twenty times, and numbered. (See Fig. 1) The student listened to the problem, and circled on his answer sheet the letter corresponding to what he considered the best answer. The answer sheets were then passed in and corrected; for every question incorrectly answered, the letter corresponding to the correct answer was circled in red. The answer sheet was then returned to the student, and the problems were read off once more. The student, by referring to his answer sheet, could tell which answer he had originally chosen, whether that answer was correct or not, and, if not, what the correct answer was.

The tactile substitute for this blank form, after a little experimentation, turned out to resemble an oversized cribbage board, a 10″ x 14″ sheet of plywood bored with eighty holes to correspond to the eighty possible responses to the twenty problems, together with flat-topped pegs to fit. Instead of being arranged in a single block—four files, with twenty ranks in each file—they were arranged in four groups of five ranks apiece. A notch cut into the center of one end of the board served to indicate that that particular end of the board was "up". (See Fig. 2) Homer was instructed that the sequence of numbers from one to twenty ran from upper-left to lower-left, and those from eleven to twenty ran from upper-right to lower-right. For example, if he wished to answer question seventeen with "C", he was to insert a peg in the third hole of the second rank of the lower-right quarter of the board.

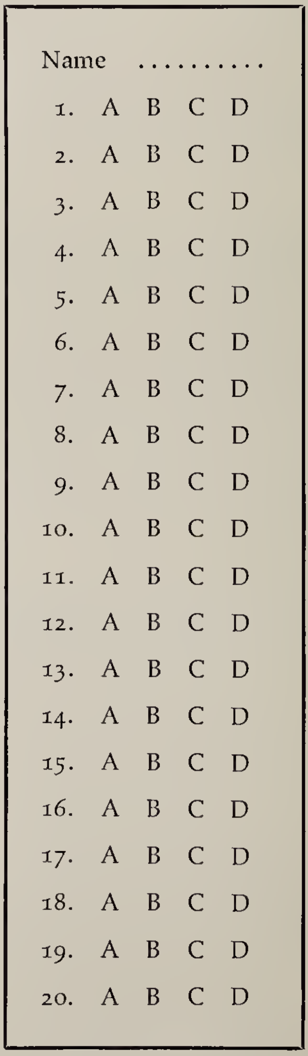
Name ....
1. A B C D
2. A B C D
3. A B C D
4. A B C D
5. A B C D
6. A B C D
7. A B C D
8. A B C D
9. A B C D
10. A B C D
11. A B C D
12. A B C D
13. A B C D
14. A B C D
15. A B C D
16. A B C D
17. A B C D
18. A B C D
19. A B C D
20. A B C D

Fig. 1

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[2] A-LM (Audio-Lingual Materials), published by Harcourt, Brace and World, is a system of foreign-language instruction which lays heavy stress on oral learning and on periodical testing of such learning.

After a multiple-choice oral test had been given, the board was turned in for grading. For each question incorrectly answered, a special peg, topped with a sharp-pointed brad, was inserted in the hole corresponding to the correct response. Thus, for every question which had been correctly answered, Homer could feel three holes and one flat peg-top, while for every problem incorrectly answered, he could feel two holes, a flat peg-top (the wrong answer), and a sharp point (the correct answer). Other devices were used, but the above were representative.

If a particular test proved impractical

As might have been expected, some of the teaching and testing devices employed refused to adapt gracefully to Homer's needs. If a particular test proved impractical, I would keep him after class, read the problem off to him, and record his replies. This was admittedly not as good as the original, but the best that could be done under the circumstances.

When grades had been computed for the semester, it became apparent that Homer had earned a B.

(1) The most difficult problem connected with adapting the subject to Homer's needs was simply remembering that the requirement existed. More than once, after having covered the blackboard with a symphony of hieroglyphics, accompanied by an obligato of explanation, I realized that habit had once more betrayed me: I had once more forgotten to describe what I was writing as I was writing it, and, once more, Homer could have had only the foggiest notion of what I had been talking about. It is difficult to realize, and almost impossible to believe, how thoroughly eye-oriented most of us are.

Adapting the size of the tactile element to the dimension of the human hand

(2) Another problem concerned adapting the size of the tactile elements to the dimensions of the human hand. The first model of the multiple-choice test board was much too small, and had to be retired in favor of another, on which the size and spacing of the pegs approximated that of the keys of a typewriter.

(3) Since most people nowadays drive cars they would not venture to repair, and most language teachers use visual aids they would not venture to draw, the construction of tactile aids such as those described above might seem to be a formidable undertaking. However, the difficulties are probably less serious than might at first appear:

(a) For most purposes, restating a visual aid in tactile terms consists essentially of transferring data from a two-dimensional picture or chart to a two-dimensional surface on which three-dimensional objects are arranged.

(b) Most of the useful data transmitted by a visual aid will fall into one of a few distinct categories—people, places, things, and activities.

(c) As we have seen above, places can be represented in terms of areas marked off by wire or other low-relief means of demarcation, while people, things, and activities can all be symbolized by objects of higher relief whose shape and texture indicate their functions.

(d) Although the significance of each object is more quickly learned if the shape of the object suggests its function, and although variations between medium and high relief undoubtedly allow for more rapid recognition than might otherwise be the case, these fine distinctions are not really essential. It is

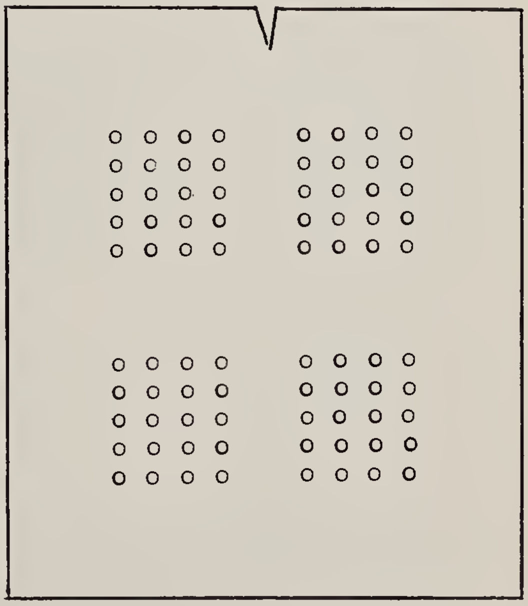

Fig. 2

probable that, given areas marked out in low relief, virtually all other functions desired can be indicated by a single type of high-relief or free-standing object without excessive risk of confusion. It is also probable that the symbols expressing these functions could be completely arbitrary—spheres, cubes, crosses, and the like.[3]

Symbols can be arbitrary

(e) The physical construction of the tactile aid—the actual shaping of the wood, metal, plastic, or what not—might seem to be a problem. However, anyone who possesses a visual aid, a measuring-tape, and a knowledge of simple arithmetic can lay out a tactile duplicate; and anyone who can lay out a tactile duplicate can either make it himself or find someone who can. In the basements and garages of America lurk millions of secret putterers, armed with low-cost power tools, and eager to exercise their ingenuity.

(4) In Homer I had a basically intelligent, strongly motivated student, to whom use of one of the two senses normally required for the subject—sight and hearing—was denied. The substitution of tactile for visual stimuli was the best half-measure available. Nevertheless, Homer was infinitely better off than those students displaying the no-sweat syndrome, *prima facie* evidence of horse-trading disease. This virulent affliction is characterized by hallucinations and illusions, notably the belief that all human transactions can be reduced to the dimensions of a horse-trade: in the mind of the patient, the process of attending college consists of wheedling the seller (the instructor) into parting with the horse (the degree) for the least money (effort). The disease usually attacks college students fresh from high school, where the relatively lower pressures normally obtaining allow the virus to become well established; the suddenly increased pressures of college, though hostile to the virus, tend to provoke a syncope from which the patient may not recover. The ratio of recoveries to fatalities, is not known; however, it is indisputable that the particular Chichevache[4] that devours the victims of this particular ailment is much fatter than absolutely necessary.

[3] In Italy during World War II, I observed American servicemen playing chess with bottle-caps. It is difficult to posit any necessary connection between Orange Crush and King, or between Coca-Cola and Pawn, but the players did not seem to be aware of any problem of identification. It is true that a complete chess set requires only two sets of six, for a total of twelve different patterns, but a reasonably alert student could probably absorb the significance of forty or fifty arbitrary symbols without undue strain.

[4] In French medieval legend, Chichevache was a dragon with a curiously selective appetite: he devoured only patient wives, and as a consequence was always woefully thin.

Letters to the Editor

Dear Editor:

I wish to comment on the article "The Process of Vocational Development—Implications for Counseling Male Blind College Students" by Dr. Paul Sevransky in the *New Outlook*, December 1967, not only as a psychologist but as a former male blind college student.

First, while I have my doubts as to the validity of the author's model of vocational development, I am quite sure that it is irrelevent to the problem at issue, i.e., the vocational immaturity of the blind college student. The author's "application of the model to the problem" seems to depend upon a series of statements for which he cites no substantiating evidence—for the reason, I believe, that there is no evidence. In fact, the very existence of the problem is not well documented and is therefore to be questioned. Thus, the origin of such statements as "blind children tend to develop at a slower rate than do sighted children," is not to be found, I suspect, in empirical data, but in the traditional stereotypes of blindness unchanged though dressed up in professional jargon.

Second, the few observations which the author does cite concerning blind college students are explainable in terms more plausible than the author's developmental hypotheses. Excess dependence when shown by a blind college student can probably be accounted for in terms of improper training in alternative techniques such as cane travel, along with unhealthy attitudes encouraged not only by family members (with or without guilt for having borne a blind child) but also by those agencies for the blind whose personnel have vested interest in the dependence of the blind on their services. Likewise, lack of sexual information or heterosexual experience is, from all I know of my own and my blind friends' adolescence, due not to any preadolescent lack of sexual interest or arousability, but to a combination of factors, including unavailability of information in forms accessible to the blind, mobility problems in dating in a society where the car is the accepted setting for the date, and discrimination against the blind teenager by potential dates and/or their parents.

Finally, the author's recommendations need revision in accordance with the above criticisms, as well as a view of rehabilitation ethics which holds that the blind student is normal until proven otherwise and is entitled to make his own choices from as broad a spectrum of educational and vocational opportunities as can be provided. 1) It is not true that the pressure to enter college is significantly less on the blind student than on his sighted colleague. Modern education takes long enough, without prolonging it, and unless there are specific reasons for delaying entrance to college, such as training in needed skills, I see no point in putting off college. In any case the choice should be the student's. 2) The blind college student may be allowed to discover himself vocationally during college along with his sighted friends, within the scope of the vocational rehabilitation law, provided that his agency's policy is flexible enough to accommodate normal changes of goals. In the experiences of blind students whom I know, this is the way vocational choice takes place. Counselors may be as unrealistic concerning career possibilities as anyone else who might advise a student. 3) Choice of a college and of activities, curricular and extra-curricular, should be made by the blind student on the same basis as other students' choices, i.e., the interest and abilities of the student, the financial situation of the family, etc. It seems inconsistent to point to dependence as a pathological trait characteristic of blind students and then to advocate their participation in "heterosexual social activities sponsored by rehabilitation agencies at the college." And psychotherapy, of course, should be available to anyone who needs it, blind or sighted. To imply, however, that it is especially necessary to the blind college student is without justification and probably injurious.

Roger D. Petersen
Assistant Professor of Psychology
Washington College
Chestertown, Maryland

The New Outlook

for the Blind

welcomes suggestions

and comments

from readers

Current Literature

Improvement of Listening Comprehension in Partially Sighted Students, by Robert W. Bischoff. *The Sight-Saving Review* (National Society for the Prevention of Blindness, Inc., 79 Madison Avenue, New York, New York 10016), Vol. 37, No. 3, Fall 1967, p. 161-165. Dr. Bischoff is a teacher of visually handicapped children in the public school system in Tacoma, Washington. In the course of research for his doctoral dissertation, he found that a special series of listening lessons significantly increased comprehension in a group of students with visual handicaps.

Orientation and Mobility for Pre-School Blind Children, by John R. Eichorn and Hugo R. Vigaroso. *The International Journal for the Education of the Blind* (1839 Frankfort Avenue, Louisville, Kentucky 40206), Vol. 17, No. 2, December 1967, p. 48-50. Dr. Eichorn is the Coordinator in the Department of Special Education and Rehabilitation at Boston College and Mr. Vigaroso is on the Boston College Peripatology staff.

Developmental Concepts of Blind Children between the Ages of Three and Six as They Relate to Orientation and Mobility, by Lawrence B. Hapeman. *The International Journal for the Education of the Blind* (see address above), Vol. 17, No. 2, December 1967, p. 41-48. Mr. Hapeman, a mobility instructor at the Missouri School for the Blind, divides the needed basic concepts into three main classes—(1) Concepts needed for understanding the true nature of the environment. (2) Concepts needed for achieving and maintaining orientation. (3) Concepts needed for efficient mobility.

The Factory as a Social Service: Goal Displacement in Workshops for the Blind, by Robert A. Scott. *Social Problems* (Adelphi College, Garden City, New York), Vol. 15, No. 2, Fall 1967, p. 160-175. A description of the process of goal displacement and an analysis of the ensuing impact upon two factors in the welfare system. The first factor is the effect which goal displacement has had upon blind workers and the whole employment program for the blind generally. The second factor concerns the ideologies which workers for the blind maintain about the capacities and desires of blind persons to work in commercial settings, and of the receptivity of sighted persons to hiring the blind.

Blind Girls in Regular Troops, by Jane LaGrange. *Girl Scout Leader* (Girl Scouts of the U.S.A., 830 Third Avenue, New York, N. Y. 10022), Vol. 44, No. 9, December 1967, p. 10-11, 16. Vinton, Iowa, where the Iowa Braille and Sight Saving School is located, has, for the past four years, had both blind and partially sighted members in their regular Girl Scout troop. Mrs. LaGrange, the neighborhood chairman, tells of the resulting benefits to both the blind and the sighted girls. M.M.R.

News in Brief

■ An all-day open conference on Education of Blind and Visually Impaired Children with Additional Handicaps will be held at Teachers College, Columbia University on Monday, April 15, 1968. Emphasis will be placed on identification, medical diagnosis, educational programming, and specific techniques for working with young multiply handicapped children. For further details, write to Department of Special Education, Teachers College, Columbia University, 525 West 120th Street, New York, N.Y. 10027.

■ The first Melvin R. McArtor Memorial Award of the Rehabilitation Association of Nebraska has been presented to Mr. McArtor, who died in October 1966, posthumously. This award, which will be presented annually in "recognition of outstanding service to the development and maintenance of vocational rehabilitation services in Nebraska," was established by the executive board of the Rehabilitation Association of Nebraska as a memorial to Mr. McArtor, who was for many years a counselor for Nebraska Services for the Visually Impaired.

■ A *Scriptwriting Manual* prepared by the Illinois Counseling Home Teachers has been published by Western Michigan University, Kalamazoo. The manual, which offers a method of teaching cursive writing to both adventitiously and congenitally blind persons, should be particularly useful in the rehabilitation situation since it makes minimal use of specialized equipment.

The method used in the *Scriptwriting Manual* utilizes the corrugated writing board to maintain a straight line of writing. Embossed script alphabet, numbers, and punctuation marks are used as guides to symbol formation, giving the student an opportunity to observe a completed symbol in three dimensions.

■ Dr. Natalie C. Barraga, coordinator, Program for the Visually Handicapped at the University of Texas, has been appointed editor of the *International Journal for the Education of the Blind*. The *Journal* is a quarterly published by the American Association of Instructors of the Blind.

■ Walter E. Olson has been appointed assistant director of the Boston Center for Blind Children. A graduate of Eastern Nazarene College, Mr. Olson was a public school teacher for many years, and for the past year was director of the Sunlight House for the Blind. In his new position, he will be responsible for the Center's residential diagnostic and treatment facility for emotionally disturbed blind children.

■ Recordings for the Blind, Inc., which has been providing recorded textbooks without charge to blind college and university students, has expanded its free service to include blind elementary and high school students. For further information, write to Recordings for the Blind, Inc., 215 East 58th Street, New York, N.Y. 10022

■ The Mount Carmel Guild, Newark, N.J., has broken ground for its Comprehensive Mental Health Center, Diagnostic Center for Speech and Hearing, and Child Care Center for the Retarded. The new Centers will be at 31 Mulberry Street in Newark.

■ The National Health Council, through its Committee on Continuing Education, will sponsor nine courses in the summer of 1968 for eligible personnel of voluntary, official, and professional health agencies and organizations.

The seven universities where the courses will be held are Columbia University, George Washington University, Indiana University, University of California, University of Chicago, University of Oklahoma, and the University of Wisconsin—Milwaukee.

Information about these courses may be obtained from Wilma Dean Henry, director, Continuing Education Program, National Health Council, 1740 Broadway, New York, N.Y. 10019.

■ Advance registrations are now being accepted for "An Action Program for Human Welfare," the 95th annual forum of the National Conference on Social Welfare. For further details about the meeting, which will be held in San Francisco May 26-31, write to National Conference on Social Welfare, 22 West Gay Street, Columbus, Ohio 43215.

■ The Administration on Aging and the Public Health Service of the U.S. Department of Health, Education, and Welfare have awarded a $6,859 demonstration training grant to Idaho State University for the establishment of a training seminar for Idaho nursing home administrators.

The seminar, a prototype for future courses of this kind, will be developed and conducted by Dr. Richard A. Merrian, regional director, Idaho State University Continuing Education Program. The 53 participants will be oriented in methods of evaluating care for the chronically ill aged and participating in the Federal Medicare and Medicaid programs.

■ Dr. Dan S. Gordon of Cornell University Medical College says the average eye is so made that it can be expected to outlast its user, according to a report in *The New York Times.*

Dr. Gordon went on to say that "We tend to think of eye diseases such as glaucoma and cataract as being caused by some mechanism within the eye itself, but there is no question that many systemic ailments (for example, high blood pressure and diabetes) play an important role in either instigating or speeding up the development of these eye diseases."

■ The National Council On the Aging has established a National Institute of Industrial Gerontology. The Institute, which will be set up under a contract with the United Staes Employment Service, will carry out research on the occupational aspects of aging and industrial retirement.

Norman Sprague, director of the National Council On the Aging employment and retirement program, will serve as director of the new institute. Miss Irma Rittenhouse, formerly director of research for the New York Division of Employment, has been appointed deputy director.

■ An acoustic signalling device designed to help the blind and visually impaired to distinguish between the "stop" and "walk" lights at pedestrian crossings, has been designed by AGA, a Swedish manufacturer of signalling equipment and electronics.

The device emits a ticking sound with a frequency of about 75 pulses per minute while the light is red. After the light changes to green, the frequency is raised to about 750 pulses per minute. Normal hearing distance for the sound is about 25 feet from the box. The distinctive difference between the two frequencies makes it easy for the blind and visually impaired to determine whether they should stop or go.

AGA developed the device in collaboration with Swedish traffic authorities and the Swedish Association for the Blind.

■ John S. Prickett Jr. has been named to succeed the late Dr. A. P. Jarrell as assistant state superintendent of schools in charge of vocation rehabilitation services for the state of Georgia.

Mr. Prickett comes to his new post from the state Division of Vocational Rehabilitation of which he had been director since 1964.

Coming Events

March 4-6 National Council on the Aging, Eastern Regional Meeting, Washington, D.C.

March 24-27 National Rehabilitation Association, Region III Convention, Washington, D.C.

April 14-20 Council for Exceptional Children, New York, N.Y.

April 3-5 National Society for the Prevention of Blindness, New York, N.Y.

April 15-16 American Association of Workers for the Blind, Mid-West Regional Conference, St. Louis, Mo.

April 17-19 National Rehabilitation Association, Region VI Convention, St. Louis, Mo.

May 23-24 Model Reporting Area, Bethesda, Md.

May 23-25 4th Annual Conference of Ultrasonography in Ophthalmology, Philadelphia, Pa.

May 26-31 National Conference on Social Welfare, 95th Annual Forum, San Francisco, Calif.

May 27-29 National Rehabilitation Association, Region II Convention, New York, N.Y.

June 3-7 National Rehabilitation Association, Region VIII Convention, Casper, Wyo.

June 12-14 National Rehabilitation Association, Region I Convention, New Haven, Conn.

June 23-27 American Association of Instructors of the Blind, 49th Biennial Conference, Toronto, Ont., Can.

July 7-10 American Association of Workers for the Blind, Annual Meeting, Toronto, Ont., Can.

July 2-5 National Federation of the Blind, Annual Meeting, Des Moines, Iowa.

July 21-28 Blinded Veterans Association, Annual Convention, San Francisco, Calif.

July 31-Aug. 5 World Organization for Early Childhood Education, Washington, D.C.

Aug. 26-29 American Sociological Association, Boston, Mass.

Aug. 30-Sept. 3 American Psychological Association, San Francisco, Calif.

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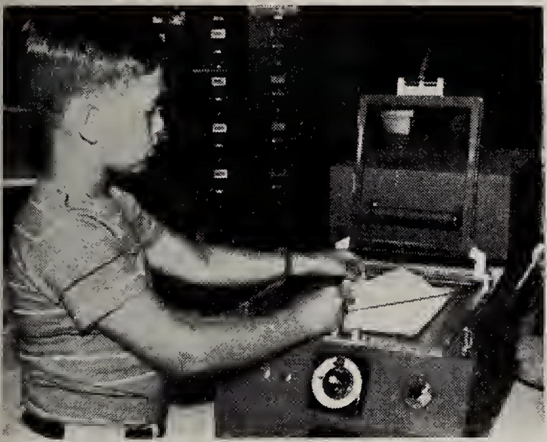

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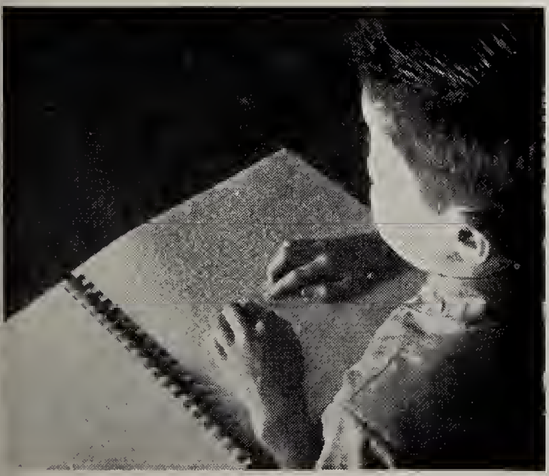

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You and the Agency:
Client-Centered or Agency-Centered

HELEN CLEARY

Miss Cleary, formerly an executive director of the Massachusetts Association for the Blind, Boston, is at present a candidate for a doctoral degree at the Harvard University School of Public Health.

In 1963, the Massachusetts Association for the Blind undertook a three-year demonstration research project, titled "Providing Generalized Services for Handicapped People."

Let us focus our attention, not on the methodology of the study, although this will be described briefly, but rather on the meaning of the findings, conclusions, and recommendations for the "Workers," i.e. the people who day in and day out are concerned with operating service programs to assist blind people in a variety of ways.

The purpose of this project, funded by the U. S. Public Health Service, was to:

> "demonstrate a method of referral, consultation, and education which would facilitate the provision of generalized health and welfare services to certain categories chronically ill and handicapped people (exemplified in this instance by the adult blind)."

Basic to this study is the Association's philosophy which holds that:

1. Blind people should function in the mainstream of society, i.e. be contributing members of society and participating members in the community. This goal is attainable and desired by some blind people. It is not possible for some and there are those blind people who do not want it.
2. An agency supported by public or private funds with the expressed intention of serving blind people has an obligation to open the door to integration. The blind person does not have to walk through this door but he should know that if he wants to, he can.

Blind Persons and Generalized Agencies

☐ The study, therefore, was an attempt to show how this philosophy could be applied in practice, since one way of assisting a blind person to be part of the community is to make it possible for him to use available community resources such as recreation programs, adult education courses, family service counseling, etc.

Opening the doors

The question we tried to answer was—How, for example, do you open and keep open the doors of a community recreation facility or a family service agency to blind people, or more specifically, how do you create the kind of atmosphere whereby a blind person is as readily accepted and permitted to make use of the services of these agencies as physically normal people? It should be noted that this is not the responsibility of agencies alone. The individual handicapped person also has responsibility in this area. However, we shall deal here only with agency responsibility.

The initial proposal assumed that a major obstacle to the provision of services to handicapped people by generalized agencies was the attitudinal barriers of the staffs of these agencies toward handicapped people. Therefore heavy emphasis was placed on consultation and education with staffs of other agencies in an effort to overcome this barrier. Some of the techniques used were interviews with staff at all levels; discussions at staff meetings; joint meetings of the study staff and agency staffs; discussions at board meetings; and questionnaires. Information on attitudes toward handicapped people and on policy and practice related to service for handicapped people was our goal.

Agencies dealt with in study

Six different categories of agencies were dealt with in this study: social casework agencies; recreational agencies; mental health centers; rehabilitation centers; hospital social service departments; community agencies serving handicapped people.

The first three categories were considered generalized since their services were available to people without regard to their physical handicap; the last three were considered categorical in that a physical handicap was a necessary criterion for intake. Only that phase of hospital social service departments dealing with handicapped people was of concern.

The conclusion deals with specific deficiencies in the health and welfare field common to most agencies.

In discussing this study with all types of practitioners in the health and welfare field, many have asked, "What can I do about this, what does this mean to me?" These questions reflect the tendency of most of us when we hear recommendations which speak of "community" problems or "agency" problems or "planning" problems, as something which concerns the vague "they" who must do something about these problems. We seem to forget that we, each one of us, are "they."

We cannot ignore the fact that a problem may be common to many, but neither can we let this block individual action.

Since our readers are individuals functioning as board members, administrators, supervisors, and practitioners, including social caseworkers, social group workers, recreation workers, mobility and orientation therapists, home-teachers, vocational counselors, occupational therapists, secretaries, receptionists, maintenance staff, etc.—let's look at our conclusions and findings in terms of their meaning to you.

Space does not permit listing all of them. We shall therefore list a few in capsule form and indicate our concept of their implications for action by you.

It is evident that a different set of questions could be raised on each of these for the board member, the administrator, and the practitioner. We shall restrict ourselves however to one category of worker for each one. Our readers may enjoy making up their own list of questions for their administrator, board members, or staff, as appropriate. Now to some of the major issues:

Services are agency rather than client-centered

The services of the majority of agencies are not client centered but agency centered. At first glance this would appear to be a policy matter and therefore for administrators and board. Indeed it is. But it is also a matter for the practitioner.

For example:

- When you are working with a client, do you listen to him?
- Are you thinking about what *he* needs or what *you'd* like to give him?
- Are you thinking about the kinds of services your agency offers, or you specifically offer, and are you trying to fit him into one of these services so he will be a statistic on your record or your agency's record?
- Does what he needs require the services of another agency, and should he be referred? Do you refer him? Do you know what other agencies have to offer so that you can refer him?
- Does he really need any service at this time? If not, do you hang onto him anyway for your statistical collection?

This is what conclusion means to you the practitioner—are you looking at what this person who has come to you for help needs or what you need to have him do to meet your own needs?

2. *Handicapped people can learn to compensate to some degree for the limitations imposed by their handicap.* All handicapped people do not compensate to the greatest degree possible. Some use compensatory skills and aids more effectively than others. Knowledge about the ability of handicapped people to compensate is generally lacking among the staffs of generalized agencies. (This is particularly true in relation to blind people.) This may be one reason why generalized agencies imply, despite their expressed willingness to serve handicapped people, that because of a handicap a person may be unable to function in the generalized agency setting.

This conclusion deals with a core problem in the field of blindness. Creating positive attitudes toward handicapped people so that handicaps in and of themselves will not be a barrier to service is a mammoth task. Discernible progress is a generation or two away. One cannot accomplish it alone. Truly effective education demands agreement among all agencies and organizations serving blind people on a basic philosophy of service. This may be on the horizon, but it can't be seen at this time.

Meanwhile, what do you, the administrator, do about this?

- Do you discuss philosophy of service with your colleagues, your board?
- Have you, singly or in conjunction with other agencies serving blind or handicapped people, sponsored seminars in your community on the ways in which a handicapped person can compensate for his handicap?
- Have you sought opportunities to speak at in-service training sessions of other agencies, professional meetings of nurses, social workers, etc. about this subject?
- Is "Methods of Compensation" a subject in the orientation program for your new staff and board members?
- Do you, yourself, and does your staff include this subject in talks before civic organizations and community groups?
- Do you point out to your colleagues in the health and welfare fields who comment "aren't they (blind people) remarkable the way they get along," that they are using the same senses we have minus one, that they function by training these remaining senses, using aids and devices, memory, etc?

In other words, have you taken advantage of all possible opportunities to provide this kind of very basic information on blindness? This is only one facet of an educational program. But it is a good tangible facet. It is interesting and understandable to the listener. It is a good beginning.

Communication among agencies generally lacking

3. *Intercommunication and consultation among and between agencies that are sharing responsibility for specific clients is generally lacking.*

One major function of a supervisor is to see that the most effective possible service is given to those who come to the agency for help. How can service begin to be effective if you do not collaborate with others working with the same clients? So for the supervisors:

- Do you instruct your workers to provide and receive adequate information on referrals to and from other agencies; report to, and get reports from another agency on a referral?
- Do you not only instruct them, but do you see that they do it?
- Have you promoted with your administrator the idea of developing specific written agreements for sharing case information and collaborating on treatment plans with agencies with whom you have clients in common?
- Have you promoted this idea with supervisors in other agencies?
- Have you provided your administrator and/or supervisors in other agencies with a draft of such a proposal?
- Have you thought of procedures for implementing these agreements?

Understanding Agency Policy

4. *The majority of professional staff members in agencies either do not have a clear understanding of agency policy as articulated on the administrative level or do not understand the degree to which flexibility within stated policy is permitted in its application to client service.*

For the administrator:

- What is your agency's policy, for example, relative to intake?
- Does your staff know this policy?
- How does your staff implement this policy in practice?
- Do you ever linger in the vicinity of the reception desk?
- How often do you discuss policy related to client service at staff meetings or ask a staff member for his interpretation of same?
- What system do you have for constantly reviewing staff's interpretation of policy in practice?
- How available are you and/or your supervisors to staff for the purpose of answering questions?

5. *The majority of agencies serving handicapped people have inadequate staffs for assessing the total needs of clients and since professional manpower shortages are already acute and are becoming more critical, community agencies serving handicapped people should consider seriously the desirability of pooling their resources.*

For board members:

- Do you know board members of allied agencies? Do you discuss common problems with them?
- How many other agencies are there in your community serving blind or handicapped people? What type of program do they have?

- What kind and how many staff members do they have?
- What is their annual budget and their source of funds?
- Do they have staffing problems?
- What are your own agency's staffing problems?
- Does your board ever talk about going out of business because another agency is better equipped to do the job or because a merger of two or three agencies would do the job better than you are doing it? Have you ever brought this subject up? Have you ever thought about it?

6. *The first person encountered in an agency is often the deciding influence as to whether a person accepts the agency. The first person encountered in an agency often decides whether an applicant for service will be considered for intake.*

It is difficult for anyone to ask for help. For many it takes a great deal of courage to dial your agency's number or walk in your front door. When they do, they often do not know exactly how to ask for what they want because sometimes they don't know what they want. The first person they encounter in the agency is you, the telephone operator, the receptionist, the secretary, or possibly the maintenance man.

- If they call on the phone, and ask for a service your agency doesn't offer, do you say, "no, we don't do that" and shut the door on them. Or do you suggest that perhaps they might like to talk to someone who has the time to talk with them, and the training to help them articulate their needs.
- If they come into the agency, do you greet them pleasantly? Do you make them feel comfortable so that they know that your agency is really there to help them?
- Do you listen to what they have to say, no matter how they might look, how belligerent ot difficult they may seem?
- If no one is around at the moment who can see them do you assure them of the agency's interest and make sure the appropriate person knows of their visit?

7. *Many agencies lack trained workers capable of assessing a client's total situation and making an appropriate referral.*

As trite as it may sound, the fact that many different types of people come to an agency for help with many different types of problems. Some problems are very simple, others vastly complex. Analysis of the problem and differentiating between the simple or complex, requires training, compassion, understanding, and respect for the dignity of the client. In the final analysis it is the board's responsibility to see that its agency is properly staffed to carry out the program it purports to offer. So board members:

- Who makes the decision in your agency as to the service to be offered to a client?
- Are you aware that the effectiveness of the service program of your agency hinges on the competency of this person?
- What kind of training does this person have? Does he (she) meet the standards set by *The Comstac Report?*
- Do you know this person? Have you talked with him or her? Or, if yours is a large agency, do some of the board members know him or her?
- If the person is not equipped to do this job properly, is your administrator looking for someone with training?

8. *Where referrals were attempted from agencies serving handicapped people to generalized agencies some, but little, success was realized.*

To what extent should a specialized agency build its own services so that it is complete unto itself in meeting client needs? There is not a "yes" or "no" answer to this question. Some clients cannot use generalized community services. For others, use of generalized services is the logical answer to meeting their needs. Agencies serving blind people and other handicapped people have made too little use of existing community facilities for services on behalf of their clients. Therefore referral is difficult because other agencies have had no contact with blindness. They have gotten the idea that a blind person has such highly specialized problems that only the "specialists" in the categorical agency can serve them.

This concept of blindness promoted by agencies serving blind people reinforces the existing stereotypes of blindness in the community and hurts the able blind person who is attempting to function as a contributing member of society.

May we ask the administrator:

- How conscious are you of this problem?
- How much is your agency contributing to this problem?
- How conscious is your staff of this problem?

To conclude, although we have directed these questions to staff and board of agencies serving blind people, they could as easily have been directed to staff and board of any other type of agency, as we discovered in the educational phase of our study which dealt in depth with seventy-three agencies involving 235 staff people and peripherally with 350 additional staff. So, the problems posed significantly relate to the total health and welfare field.

Action from a community planning body or any overall community structure cannot make inroads on these problems by itself. Everyone, you and I, must get into the act in our own everyday job. There is an ancient proverb which goes something like this, "In the sands of life you may be but a grain. But on the scales of justice you have the right to determine on which side of the scale you place your grain."

In the May *Outlook*—articles on a new braille writing slate and teaching handwriting to the blind.

The Development of Perceptual-Motor Abilities in Blind Children and Adolescents

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It is important to attempt first to define some of the terms contained in the title of this article. The word *perception* has many meanings and to examine even some of them now is beyond the scope of this article. Fortunately, the hyphenated term *perceptual-motor* has a more limited meaning. It is usually an adjective applied to a movement task whose execution is heavily dependent upon the accuracy with which the performer organizes incoming sensory information. With reference to blind children, perceptual-motor behavior may refer to their efforts to learn by manually inspecting various components of their environment or, in a broader context, to movements which enable them to judge their ever-changing position in space while walking.

The phrase "blind children and youth" also needs some explanation. An authority on blindness has recently suggested that *blind* must be considered in the plural. He states that one must differentiate between the congenitally blind, blind from birth, and those who have become blind through some kind of disease or accident, the adventitiously blinded. This same author also presents a second dichotomy with which to classify the blind—the rehabilitated blind versus those who have not come to terms with their affliction (2).

We will focus our attention primarily upon the judgments important to the blind while they walk. Most of the children and youth who have been our subjects are relatively well-adjusted, intelligent, and are congenitally blind.

Program Initiated to Determine Variables Which Contribute to Accurate Mobility of Sightless

☐ For several years prior to our work with the blind, we conducted basic investigations of human performance and learning in which the sighted subjects' vision was frequently eliminated by blindfolding them in order to better control sensory input. It became apparent while working on these studies that some of the information we were obtaining could have practical significance for the blind. Three years ago we initiated a five-year-program in which we hoped to determine some of the variables which contribute to the accurate mobility of the sightless.

It is extremely difficult for the sighted to place themselves within the reference system employed by the person who has never had vision. While the congenitally blind are frequently heard to utter "sighted" terms such as "red" and "shiny," it is doubtful whether these words are anything but interesting adjectives applied to certain nouns. If queried about his conception of color, for example, the sightless child will sometimes say, "The sky is blue, the grass is green, but the colors are sighted terms."

Unless presented with increasingly complex objects to inspect manually, the blind child may fall intellectually behind the sighted child. Particular difficulty may be noted as the blind child attempts to grasp concepts related to space.

When blind children realize they are different

Just as it is difficult to understand the blind, it is not until the age of four or five that many blind children begin to realize that other children are different from them in an important way. A pair of blind twins was recently reported by their mother as first realizing that there was something different about her sensory system when they failed to "hide" from her, as they could from each other, by becoming silent. In another report regarding the age of this discovery, a blind girl was seven before she perceived that she was somehow different, when she discovered that her mother was able to identify a friend in a nearby car (13).

There are basic philosophical and practical questions which arise, or should arise, when educational and recreational programs are designed for blind children. Should they be treated simply as sighted children who cannot see, or are there basic perceptual, intellectual, and emotional differences to be considered in their make-up? For example, it is usually believed desirable to eliminate "blindisms" evidenced by congenitally blind children. These rocking movements and other rhythmic motoric behavior are used when the blind child engages in apparently pleasurable self-stimulation. To the sighted, however, this kind of behavior is unpleasant to observe and, as it is usually felt that its continuance will impede the blind child socially, it is usually trained "out" of him—but to be replaced by what?

From scientific and semi-scientific writings concerning these and other questions, various spurious assumptions have arisen during the past years. Some of these have been put to chase by research while others persist.

For example, the fabled obstacle sense of the blind has been reasonably well documented as having its genesis in reflected auditory cues. The more recent suggestion in popular magazines that there are certain blind people who can judge color through their finger tips is another example. We had brief contact with this fable three years ago when we were asked to design a proposal to determine whether the tactile perception of color was possible. A review of the literature on the manual perception of roughness and of heat brought us to the conclusion, prior to beginning the study, that the identification of colors through the finger tips was impossible. Fortunately the research was never consummated for the senior author also learned at about the same time from two Russian psychologists that the Russian woman who claimed to possess this magical power later admitted to looking under her blindfold!

Congenitally blind children often possess abilities uneven in nature

Intelligent congenitally blind children often possess abilities which are remarkably uneven in nature when compared to attributes evidenced by the sighted. For example, they frequently exhibit extensive vocabularies, but are not really sure of the nature of a traffic intersection. They may be able to read braille but have great difficulty signing their name in script. A study comparing a blind and sighted identical pair of twins recently completed in our laboratory revealed that, despite the blind girl's high intellect, she had only a vague concept of the human face, she could not throw or run accurately, and when asked to draw "her favorite thing" could only inscribe a vague outline of her pet parakeet (12).

Overall educational programs for blind children seem reasonably adequate during the middle years of childhood. Blind children enter school at about the age of five and learn braille as well as other traditional subjects. By the age of thirteen they can read and write braille adequately and usually graduate to junior high school to continue their studies.

Two Areas in Education of Blind Have Marked Deficiencies

☐ The more marked deficiencies in the total educational program for blind children are in two areas—(a) pre-primary preparation for the complexities of classroom learning, and (b) preparation which will enable them to become mobile and self-sufficient in their environment during and after school years.

Veering tendency observed but not measured

A review of the literature relating to data upon which these mobility training programs were established led us to the conclusion that in most cases they employed techniques which were unsupported by objective evidence. The tendency for the blind to veer, for example, while frequently observed, had not been measured. While investigators had studied the ability of rats to perceive gradient changes without vision, no effort had been made to evaluate this ability on the part of humans without sight.

It is with these considerations in mind that our research program was initiated. During the first year, we obtained basic normative data, and from this constructed a mobility orientation test. This test measures an individual's ability to detect gradients and to walk straight without vision. Norms were compiled by assessing others similar in age. During the second year of the investigation we have attempted to ascertain the effects of brief practice upon various perceptual attributes. During the next three years, if our support continues, we intend to explore the effect of auditory cues upon the accurate mobility of blind children, youth, and adults. During the initial year of this investigation about 180 subjects were utilized, including forty-five children and youths from the ages of eight to nineteen. During the second year of the investigation we employed fewer subjects, but detained them for two days during which various kinds of tests were administered.

Analysis of Data Obtained

The following results were obtained when these data were analyzed:

1. The direction a blind individual will veer in the absence of auditory cues is predictable and amounts to about 36° of angular rotation per 100 feet of forward progress, or about 1.25 inches of deviation per stride.
2. The blind are more sensitive to incline than to decline, or to left-right tilt in their walking surfaces.
3. Postural abnormalities, as evidenced by head torsion or tilt, and hand and leg dominance, as well as structural differences in leg length are *not* predictive of the direction nor of the amount of veer the blind will evidence.
4. Highly anxious blind individuals will walk significantly slower and will veer about twice as much while walking 100 feet as will the more relaxed blind person.
5. The blind will tend to be more sensitive to the slight curvature in pathways walked when it is opposite to the direction of their usual tendency to veer.
6. Congenitally blind adolescents will be more sensitive to gradients walked and will veer less than will the older adventitiously blinded. The former however, will frequently give evidence of a lack of left-right discrimination in their

spatial field, unlike the latter who have spent the majority of their lives with sight.

7. The longer an individual has been blind the less he will tend to veer, and the more accurately he can detect gradients.

8. The amount a blind individual will veer can be significantly reduced by permitting him to tactually inspect flexible wires indicating the amount and direction he veers.

9. The blind will usually overturn 90° turns and underturn 180° and 360° turns when asked to do so in the absence of auditory cues. Training can correct this error by about 50 percent.

10. A curb must have a radius of five feet before a blind individual can successfully detect its curvature, using the presently advocated cane techniques designed for this purpose.

Mobility experts should examine some of their traditional practices

It is believed that our findings might encourage mobility trainers to examine more closely some of their traditional practices, and will also tend to facilitate communication between the blind and the sighted by aiding each to better understand the reference system of the other. For example, it was found that while the sighted can easily detect horizontal deviations in the direction a blind individual is taking while attempting to walk a straight line, the blind are many times more sensitive to gradient changes than are the sighted who are visually inspecting the same surfaces. Similarly the curvature of curbs, which are obviously curved when the sighted inspect them, are difficult, if not impossible, for the blind to detect by employing the cane techniques presently advocated by mobility trainers.

Veering may be caused by perceptual distortion

While mobility trainers have at times placed heel lifts under the leg toward which the blind trainee veers, our findings suggest in several ways that the veering tendency is caused by some kind of perceptual distortion, rather than by structure. The blind, as well as the sighted, walk their legs, their legs do not walk them! A most interesting finding is that the direction an individual will habitually veer on the field can be predicted to a moderate degree by asking him to draw a "straight" line directly away from the center of his body while seated at a table.

Further evidence, which has important implications for the perceptual-motor development and training of blind children, was gained when blind children were asked to walk through the curved twenty foot pathways with radii ranging from twelve to forty-two feet. Sixty percent of the responses obtained from congenitally blind children were inaccurate, whereas the adventitiously blinded were usually correct in their judgments of these pathways. Although the congenitally blind were more accurate than the adventitiously blinded when walking straight and when judging gradients, one might conclude that the congenitally blind children did not have an accurate concept of laterality firmly established. Their ability to differentiate between left and right was extremely poor.

Most child development experts suggest that the child's basic perceptions of his body, including an awareness of its surfaces, as well as perception of the differences in the sides of the body, are formed early. By the age of six, it is

Laterality not as well established

usually suggested, the child's laterality as evidenced by hand-use is well established. It was apparent from our data that laterality was apparently not as well established in the congenitally blind.

These kinds of data suggest that in addition to an orderly presentation of increasingly complex objects for manual inspection, the congenitally blind child should be given training rather early in life designed to heighten his awareness of his body parts. Probably such training should accompany, and may enhance, the development of speech.

As soon as possible the infant should be made aware of his front and back, parts of his face and the location and name of his limbs. Furthermore he should, in every possible way, be given tasks designed to enable him to understand various left-right concepts—that left and right directions change as he moves and that an individual facing him has a different left and right than he does. At the same time the child should be made to understand that his left arm and leg emerge from the left side of his body and he should be given tasks which enable him to locate himself relative to various objects. For example, using a box, various drills may be utilized which might help him to understand how to stand with his back, his front, his left side, and his right side nearest an object. If we are to believe the writings of Piaget regarding the importance of the sensory-motor period in the development of an infant and the sensory-tonic theory of perception advanced by Werner, it would seem that this kind of "body image" training is imperative for the child who has no opportunity to pair vision with movement (9) (11).

To further explore the educability of blind children in basic perceptual judgments, an eight week training program was conducted from January to March 1967 at the Frances Blend School in Los Angeles (4). Thirty blind children from the age of seven to fourteen years participated. It was hypothesized that practice in (a) correcting veer and in (b) facing movements would result in significant improvement in the ability of blind children to relocate their positions in space. The position relocation task consisted of attempting to reach a starting point after being led along the two legs of a right triangle. The hypotenuse was twenty-two feet. A group of control subjects matched according to age and I.Q. at the Foundation for the Junior Blind in Los Angeles were subjected to the same pre and post test conditions, but with no training given.

Veering greatly reduced by training

☐ Results of the study were most encouraging. For the children at Blend the average amount of veer at fifty feet before training was fifteen feet. After training the average veer was eight and one-half feet. This indicated a 42 percent improvement after training. In relation to facing movement, the average error was again calculated. The average error for 90° turns before training was 22°. After training this was reduced to 11°. The average error for 180° turns before training was also 22° compared to 13° after training. And the average error for 360° turns before training was 42° compared with an average error of 22° after training. An overall improvement of approximately 50 percent was demonstrated by the children in facing movement accuracy. Finally a mean error of twenty-six feet in position relocation was noted before training. The mean error after training was nineteen and one-half feet. This indicated a

24 percent increase in performance. All of these training effects were statistically significant. Further analysis of the data, comparing the scores of the children under ten-years-old in the experimental group with those over ten-years-old resulted in the finding that both groups evidenced comparable improvement in the tasks trained for (correcting veer and facing movements) and in the task to which positive transfer was elicited (positive relocation).

More important than the statistical implications of this study are the practical ones. Responses from their teachers indicated that the blind child's concepts of left and right were enhanced through the training in facing movements. It was observed by the teachers that this improvement in laterality and directionality has not only physical but also intellectual implications. The academic curriculum in geography is an example, i.e. understanding longitude and latitude. After the experiment was completed, some of the children were also seen to walk to the training areas on their own and to engage in facing movement practice, correcting themselves by feeling the tapes with their toes. The positive results further re-emphasize the importance of sound pre-mobility programs in improving the blind child's basic perceptual judgments that assist his later mobility and orientation within the world.

Auditory training should begin early

Auditory training, as outlined in the research by Norton, can also be employed early in the life of the child (6). Sounds can be paired with objects and with specific rooms in the home. At the same time sounds can be utilized to heighten the child's spatial orientation by placing them at various angles around him. Our intention during the next three years is, with the help of people in the departments of psychology and otology, to investigate the manner in which stable and moving sound cues contribute to and detract from the child's ability to move accurately, to detect obstacles, and to deal with his environment in other ways.

It is thus believed that three basic improvements are needed in the educational programs for blind children: early, thorough, and systematic tactile training using objects of various degrees of complexity; systematic "body image" training affording the blind child a better concept of his body, its location relative to objects, its parts, and its left-right dimensions; and a program of mobility education starting as soon as the child begins to walk. It is believed that through this three-pronged effort, more blind children will arrive a schools emotionally prepared to participate in formal programs of education, and will emerge from school intellectually prepared to make meaningful contributions to themselves and to society.

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IBM Introduces First Braille Typewriter

An electric typewriter that types in braille and can be used by anyone who knows how to type has just been introduced by the International Business Machines Corporation (IBM). First deliveries of the machine will be made about June 1.

Basically a merging of the braille cell system with the IBM Model "D" electric typewriter, the IBM braille electric typewriter, using specially adapted typebars, embosses the raised dots of braille on standard braille paper. The new machine has all of the 63 combinations of raised dots in the braille code, including punctuation marks, numerals, and capital letter sign. When the machine is in lower-case mode, it creates grade one braille; in upper-case mode, it creates grade two braille contractions. There is also a correction key in the form of a unique typebar containing "reverse" cells on the typeslug. A future issue of the *New Outlook* will carry a more detailed discussion of the new machine.

A Special Orientation and Mobility Project at a Residential School

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If one considers all the skills and knowledge acquired in the first five years of life through the visual pathway and then considers the limitations placed on the child who is denied this visual stimulation as a means of learning, one realizes the seriousness of the handicap of blindness. It has often been said that blind children are like other children, except that they cannot see. This is true, but the difference between seeing and not seeing greatly affects the development of the young child. Blindness, to a degree, immobilizes the individual and seriously impedes his ability to move about effectively and purposefully. It is through movement that learning takes place and unless the young blind child is encouraged to move and to travel early, his opportunities to learn and his ability to acquire good mobility skills are limited.

To become free and independent individuals, the blind must be able to travel. The blind child develops his ability to travel independently from practice. The more one travels, the better he becomes in the art of travel. Frequently, children's opportunities to travel are restricted because of the concern of the sighted, especially parents, for their safety.

One of the most interesting, exciting, and noteworthy projects developed at the Illinois Braille and Sight Saving School in recent years is the orientation and mobility program financed in part by federal funds made available through Public Law 89-313.

Program Covers All Phases of Orientation and Mobility

☐ The program of instruction at Illinois Braille and Sight Saving School was established to cover all phases of orientation and mobility, including a week of instruction in each student's home town. The program is based upon a unit system. Unit I covers basic skills or pre-cane skills and travel in an indoor setting; Unit II covers travel on the school grounds and the introduction of travel out-of-doors; Unit III covers beginning travel in a residential area of Jacksonville: Unit IV covers travel in the business section of Jacksonville; Unit V covers travel in a large city business area in Springfield and the use of public transportation facilities in Springfield. One of the most important parts of the program is a summer follow-up of approximately one week for each student in his home community. The unit system covers, as nearly as possible, all the travel situations a blind person will encounter. Each student is scheduled for a lesson of fifty minutes each class day for one semester. Some students will require more than one semester of instruction and, where possible, these students have been scheduled for further instruction.

Emphasis on student contact with the sighted public

The program of instruction places an emphasis on student contact with the sighted public during the mobility lessons. Many lessons are planned so the student can make purchases at various business establishments, such as clothing stores, drug stores, restaurants, and so forth. This emphasis upon more contacts with the sighted public is very important for most students because they have had no real experience nor skills in dealing with the public. Many of the students were fearful of such contacts, but as the lessons progressed they became more at ease and even began to thoroughly enjoy handling their own purchases and business with the sighted persons in various business establishments.

Thorough records kept

Thorough records are kept on each student. A complete history on each student is made up at the time he is enrolled in the program. This initial history includes family background, diagnosis of blindness, school history, and all other pertinent data concerning the student before he was enrolled in the program. Daily progress notes are kept after he has begun the course of mobility instruction. He then is evaluated in terms of his overall progress and problems in a progress report prepared at the end of the semester. This report sums up the entire semester's work with the student and evaluates his level of achievement and travel abilities. After the student has been seen in the summer follow-up session, a complete report of the week's work with him in his home community is prepared to evaluate the level of achievement he has reached in his home environment.

Vocational rehabilitation counselor consulted

The project personnel work closely with a vocational rehabilitation counselor assigned to the school by the Illinois State Division of Vocational Rehabilitation. They consult with the counselor about the students served by the project so that the needs of these students can be better known to both. Attempts are made to correlate the student's travel needs to the plans the counselor has formulated with the students. These consultations have also proved to be of great value to the counselor in assessing the students' goals where mobility is of prime importance in vocational situations.

Motivating the students

Most of the students enrolled in the school are highly motivated to learn to travel. The school is located several blocks from the downtown shopping area and it is a great privilege to have a pass to travel to town alone. All students completing the travel course are given such a permit and the school has a very liberal policy of allowing students off-campus privileges after classes and before the dinner hour. Some students, both boys and girls, have permission to go to town evenings after the dinner hour as well as on weekends. Consequently, travel instruction is desired by all and the students are highly motivated to learn.

Summer Follow-up Phase of the Program

□ The summer follow-up phase of the program has been the most interesting part of the project and the area in which the personnel of the school has learned the most. The school employs two trained mobility instructors and each student enrolled in the program during the academic year is given a week of instruction in his home community during the summer. The travel instructors have discovered that the travel needs and the environment in which our children live is quite different from that of the school. Some of our children live in rural areas or small communities of 1,000 population or less. Others live in suburban areas located great distances from the center of the town.

Rural areas and large cities

In an article Ned Jackson, one of the mobility instructors on the project, wrote for the May 1967 issue of the *International Journal for the Education of the Blind,* he stated, "The student who has problems with the formation of workable travel concepts in a well-patterned urban area has his difficulties compounded in the rural area where the terrain is even less definable. Here he must use more subtle and hard to define information to travel effectively. More travel experience in such rural areas is needed." For example, some areas did not have paved sidewalks or paved streets with curbs. On the other hand, children who lived in large cities such as Chicago encountered greater hazards and more traffic and congestion than they found at the residential school.

Problems Encountered in Summer Follow-Up Program

☐ However, the two most serious problems encountered in the summer follow-up program involved student motivation and parental attitudes. As stated earlier, the students, while at school, are highly motivated to learn independent travel and a permit to travel to town alone opens up many extra privileges. The students never seemed to lack reasons for going to town. They would go to town to do some shopping for personal items they needed or just to buy a Coke at one of the local "hangouts" for teenage youngsters. The boys would make the trip every day.

Motivation weak in home communities

The girls would make the trip less frequently but several times a week. Such trips would reinforce the travel skills they had learned from their formal mobility instruction. The mobility instructors did not anticipate that motivation would be a problem with which they would have to cope when working with the students in their home communities; however, it was. They had difficulty in selecting travel routes that would lead the students to some purposeful end. The students were not in the habit of going out on their own, were not acquainted with the young people in their home town, and knew nothing about the spots that the teenagers frequented. Moreover, they were fearful of going to such places even if they did know about them. In all the traveling they had done in the past, they had been accompanied by a member of their family. Another problem detected in the home community that was not apparent at school concerned the students' feelings of self-consciousness. They were uncomfortable in public. They sensed that people were watching them, and had a feeling they were conspicuous and drew too much attention to themselves and their blindness. Girls felt this particularly. The only exceptions were those students who were transferring from the state residential school to high schools at home. Traveling to and from school and about the campus and building provided excellent material with which to establish purposeful travel goals. All of these students were highly motivated and quite anxious to master the travel problems this new experience created.

In 1962 a program was initiated to encourage certain selected high school students to remain at home and attend the public or parochial school in the area. The program has been very successful. The need for special mobility instruction for these students at home in the new school setting was recognized but could not be solved until the development of the mobility project supported with Federal funds. The mobility project, in addition to helping the blind student travel independently in the new school setting, also relieved some of the anxiety the local school officials had regarding the admission of a blind child into their school. By spending time at the school, the instructor and pupil could clearly demonstrate to the local school officials that travel by the blind youngster in the school setting could be mastered. ☐

Working With Parents in the Home Setting

A most important aspect of the entire project was the opportunity to work with parents in their home setting. We have had numerous meetings with parents at the school where school authorities have presented programs stressing the importance of mobility and training in independent living skills but this is the first time we have met the parents in their homes and worked with them on a "face-to-face" basis. Most parents do not understand how important it is for a blind person to be able to travel independently. Those who did appreciate the fact thought that some day, somehow, their child would develop this skill and that such a skill could be acquired in six easy lessons by a mobility specialist. Our experiences have taught us this is a mistake on their part. The mobility teachers attempted to teach parents about the learning process involved in working with children.

Parents afraid to give blind children freedom

The learning of good mobility skills and the development of the ability to orient one's self to one's environment is a gradual process and children must have the opportunity to learn by doing. It was stressed that children learn to travel by having the opportunity to travel and parents had to give their child such an opportunity. All parents wanted their children to have good mobility skills, but all were reluctant to give them the opportunity to develop such skills because of their fear that they would become involved in accidents. Through being in the home for one week and working with the student for an entire semester, the mobility instructor could demonstrate to the parents that their child could safely manage to travel with a cane in the home community. By the end of the week's summer session, parents were more comfortable about letting their child explore the neighborhood and were permitting him to take a daily jaunt to practice travel skills. The summer follow-up phase of the program has led to some basic changes in the formal training program taught at the school. We now consider more the travel environment in which the student might live. Consequently, because many of our children come from rural areas and small towns, we have added more work in the travel training units for rural and suburban areas. We have now come to realize that our mobility and orientation program would have been most inadequate if we had not included the summer follow-up phase of the program. The summer program is expensive because of the need to provide travel expenses for the mobility instructors. Thanks to the assistance of federal funds through Public Law 89-313, we could finance such a program.

Tactual Maps With Interchangeable Parts

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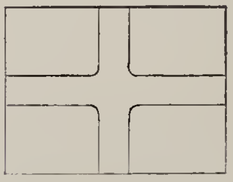
How the blind can use the Tactual Map

Distorted concepts of spatial relationships and facile verbalisms which hide a lack of direct experience can obstruct the blind child who is seeking to learn orientation and mobility skills. Frequently his contacts with his physical environment have not been integrated into accurate concepts of physical reality. Children blind from birth or early childhood have been found who believe that streets extend indefinitely, who do not have a useful concept of a "city block," who could not sense a gradual curve in a sidewalk, or who think that all intersections have the same shape (1). Unlike the newly blinded adult who knows how the world of the traffic engineers and landscape architects looks and how it functions, the child who has never had vision must be taught how spatial phenomena are related to one another.

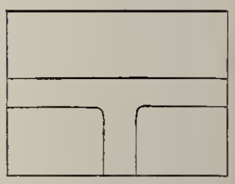
In the Alameda County mobility demonstration project (1) tactual maps which condense and store a wealth of spatial data have been designed to help blind children organize and make sense out of the information they get from their canes and from their other senses. A map is not a substitute for the long cane any more than a wiring diagram is a substitute for a radio, but a map does help the blind person fit what his cane tells him into an organized, dependable framework of meaning. Presumably, a blinded adult could use a tactual map for many of the same purposes that he had for maps before he lost his sight; but before the congenitally blind student can use tactual maps in this way he first needs to use them to learn about topography itself. At first, the map is more of a model of what the world is like than it is a guide to get him some place. Hopefully the model enables him by touch to condense into one perceptual closure the meaning of a whole "scene." By touching a model of a neighborhood he can encompass widely separated spots in one perception, but to move about in the actual neighborhood he will need his cane, his auditory acuity, and his other senses.

A tactual map for the blind to use during mobility instruction is a relatively new tool for teaching concepts of streets and intersections. Sherman (3) reports an almost total absence of city maps for the blind, and discusses the problems of presenting cartographic data tactually. Schiff (2) discusses tactual symbols and the problems of "conveying graphic diagrammatic information to blind persons." Gilson *et al* (1) in 1965 described the uses of raised maps in the Alameda County School Department project to teach orientation and mobility to blind public school students.

As a result of her experiences as mobility instructor in the ESEA Title III Project #1678, the senior author discovered the need for a re-arrangeable type of tactual map which would be portable so that it could be used in field



Normal intersection



T-shaped

work. She developed this new idea into a prototype tactual chart or diagram with interchangeable, movable pieces. This chart serves many of the purposes of a tactual map as stated by Gilson *et al* (1) but instead of the laborious detail required to create permanent maps, the new approach makes it easy for the instructor to construct a single chart which is suitable for all of his students. With one set of portable materials, he can teach orientation concepts to different blind students by simulating in a tactual diagram the actual topographical problems facing each successive student.

Permanent tactual maps are bulky to carry and are time consuming to construct, but the flexible chart is portable and is adaptable to the instructional needs of the moment. The greater detail of the permanent tactual map sometimes distracts from the precise learning task at hand, but the chart allows the instructor to limit the presentation to the immediate learning task.

Making the Chart

☐ The amount and approximate cost of materials required to construct the prototype chart were as follows:

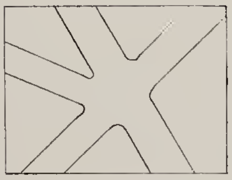
1. Valcro pile (retail value $5.00 for a piece 18″ x 24″);
2. Valcro hook (retail value $1.89 a yard for two yards of one inch tape);
3. cardboard 1/16″ thick (50¢ per sheet for 2½ sheets 18″ x 24″);
4. canvas board 3/8″ thick ($1.05 per sheet);
5. glue, contact cement (98¢ per pint of which half was used);
6. tools (Exacto knife, paper cutter, ruler, compass, glue spreader).

Materials needed

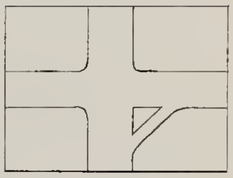
The approximate cost of materials for one chart was $11.46, and the labor involved in actual construction was approximately four hours. Much time was spent in finding sources of materials and in trying alternatives which proved less satisfactory than those which are described here. The sample chart used a canvas board backing as noted in the materials, but a honeycombed drafting board of the same size would be more durable and still be light weight.

Construction

To form the background of the chart, an 18″ x 24″ sheet of canvas board was covered with the pile section of a nylon material called Valcro, and the pile and canvas board were firmly bonded with contact cement. The result was similar to a felt or flannel board except that valcro pile is able to hold more weight. The pieces for the chart are composed of cardboard polygons of different sizes and shapes needed to show different types of intersections and city blocks. Several rectangular pieces had two corners rounded representing the curb returns found at street corners. Pieces for islands, medial strips, and other types of differences in intersections were also made. The hook section of valcro was attached with glue on the reverse side of these pieces so that they would adhere to the board with pile.



Multiple street intersection



Complex layout

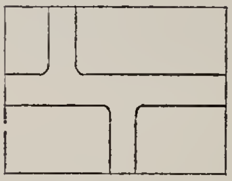
By this simple process, a very flexible instructional tool was created. Unlike the rigid tactual map, this chart, because of its flexibility, can be used with many different students and not just the few for whom a complex map can be constructed. The chart and its pieces can be re-arranged to illustrate a wide variety of field situations ranging from a specific intersection to general concepts about traffic flow and streets. It can clarify a single intersection that a student has trouble understanding; it can show a whole pattern of streets in an area; and it can show the relation of one street to others. The variety of situations which can be diagrammed with this board is limited only by the user's imagination. Additional pieces of different shapes can be made and used when necessary, and pins can be used to designate vertical objects such as fire plugs, light standards, and signs.

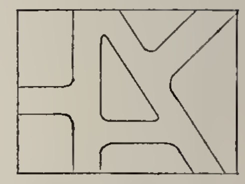
The diagrams illustrate some of the common arrangements for which the chart is used.

Advantages and Disadvantages

☐ As is true of all tools, there are both advantages and disadvantages in the use of this one. Some of the advantages of this type of map are:

1. Immediate construction of the problem. The area traveled can be diagrammed for tactual inspection right on the spot;
2. Ease of transporting the map. The flexible chart requires less space in the instructor's car than the heavy permanent maps and can be carried as the instructor walks with the student;
3. Time saved since actual maps require more painstaking construction;
4. Student communication with teacher. The teacher can test the student's knowledge of the different concepts by having the student construct his interpretation of the topography;
5. Adaptability. It can be refined and elaborated by each teacher to suit his own needs and ingenuity.


Off-set corner

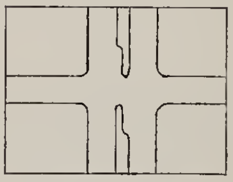

Island crossing

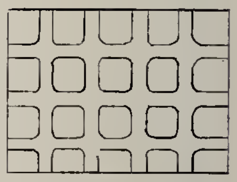
Some of the disadvantages are:

1. It is not permanent and it is not a map. It is schematic rather than precise in scale, direction, area, and in the relationships its parts bear to the actual ground;
2. As yet, it has been given only limited field trial;
3. The cost is rather high if each teacher must make his own, and much time is required to assemble the materials.

Summary

☐ A new tool, a tactual map or chart with interchangeable pieces, has been created for teachers of the blind. The chart can be used to teach general principles of the geography of foot travel, and it can be used to diagram actual specific situations. Because it is light weight and portable, one set of materials can serve many students who are taught in different locations. The materials are relatively permanent, but can be used in infinite combinations and for many purposes in addition to orientation and mobility. With it the instructor can test the student's orientation and his grasp of concepts. The flexible chart challenges but does not restrict the instructor's ingenuity in developing his own modifications and uses. To the best of our knowledge, it is a genuine innovation in the field of education of the blind.


Left turn lanes


Multiple street relationship

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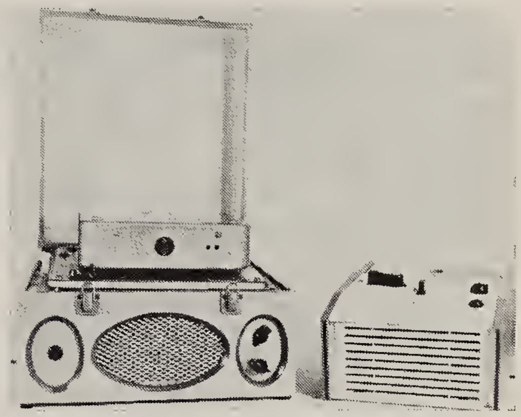
The Talking Book Program In Great Britain Today



The Talking Book Library service, administered jointly by the Royal National Institute for the Blind and St. Dunstan's, has been an integral part of British blind welfare for many years. As long ago as 1929, the *Beacon* was reporting on the search for "a process suitable as the basis of a Sound Library for the Blind." By the early thirties such a library was established, using long-playing records far in advance of the commercial market. In recent years (July 1960 and April 1964) we had occasion to review the major development of the service arising out of the conversion from disc to tape. In pre-war days, it may be recalled, membership of the library was confined to the comparatively small number of blind people who could afford to buy a record-player, but developments in blind welfare after the war soon indicated that the inability to afford a talking book machine was no longer a limiting factor, and membership grew steadily until by 1960, when we reported the forthcoming change from disc to tape, it had reached nearly 7,000, with no evidence that the demand was being satisfied. At the end of 1960 disc machines began to be replaced by the new tape cassette machines, and when we reported in 1964, the membership of the library numbered over 12,000, of whom over 7,000 were tape readers. (The branch library at Bolton was opened in that year to deal with the rapid increase in membership.)

Membership now over 22,000

Membership now totals over 22,000, of whom only a very small number still retain the old disc player. Since 1960 two libraries have been operating side by side, the disc library and the tape, the former gradually running down and the latter expanding at a rate beyond the wildest dreams of the thirties. Let us now discuss yet a further major development in the talking book field.

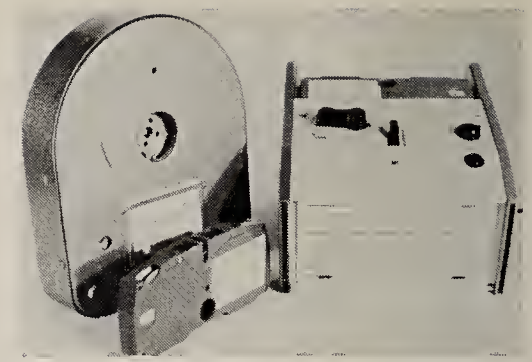
Service Adopting Improved Playback Machine and Cassette

☐ The British Talking Book Service for the Blind (as it became known early last year) is now to adopt an improved model of playback machine and cassette: a 6½ oz. plastic cassette providing up to thirteen hours' reading (the average book takes eleven hours) will replace the 6½ lb. model currently in use. This new cassette is much less liable to damage in transit, and small enough to be posted in a letter-box (thereby sparing members of the library the necessity of using a post office in returning their books to the library). The new playback machine also is more compact and provides a high-speed indexing facility which will enable the user to place-find without difficulty. With the issue of these new machines, the current model of playback machine will be converted by means of a permanently-fixed adaptor plate to provide the same facilities as the new model (i.e., will take the new lightweight cassette

Cassette can be put in mail box

This article which appeared as an editorial in the October 1967 issue of *The New Beacon*, is reprinted here with the permission of the editors of that journal.

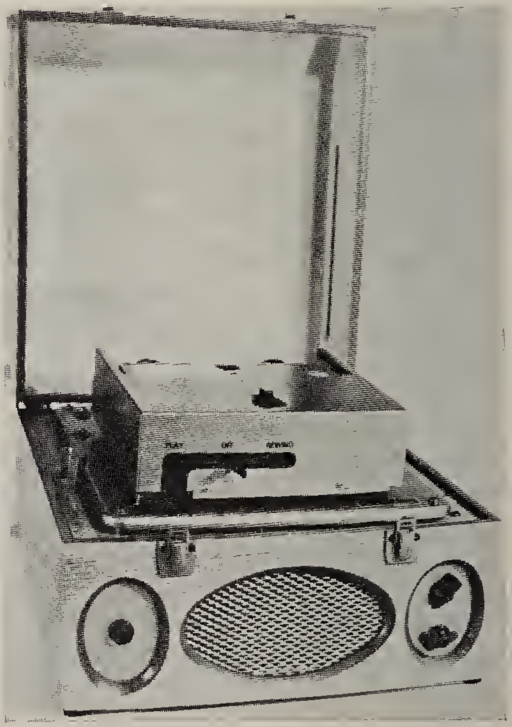
and will provide the indexing facility). The technical features of the new cassette are such that an improved, much faster, system of copying tapes can be used, thus enabling the library to keep pace better with its rapidly growing membership. This equipment has been developed, in close co-operation with the RNIB's sound recording engineers, by Messrs. Clark & Smith Industries Ltd., the manufacturers of the equipment pioneered and developed by the RNIB and St. Dunstan's which has been in use since 1960.



While the new equipment is being introduced, and until the changeover is complete, the Talking Book Library will in effect again be operating two distinct services, one using titles recorded on the old cassette and the other using the new. At the same time, all titles recorded for the old cassette and at present in circulation (over 1,200), will be gradually copied for use on the new (already a nucleus of some 100 titles has been copied on to the new cassette), and all new titles will be recorded, for the time being on both old and new cassettes.

Effect of new development on members

How will this new development affect present and future members of the Talking Book Service? When it became clear that the field testing of the new equipment was proving highly successful, production of the present model of talking book machine and cassette ceased. As a result, a waiting list has built up once more, and the first aim in distributing the new machines will be to eliminate this. All new machines therefore will go to applicants on the waiting list within a carefully established scheme of priorities based on age and physical infirmity. At the same time, the regular number of old machines which become available for re-use each week will be fitted with the adaptor plate, making them equivalent in performance with the new machine, and also issued to new members. Other adaptor plates will be fitted, in the field, to machines used by existing members (on a basis of seniority of library membership) until, after a period of four to five years, all library members will have either new machines or equivalent, modified, machines of the type currently in use.



In the context of this further new development in the talking book field, it is appropriate once more to pay tribute to the network of volunteers throughout the country who help to install and service talking book machines. Electronics enthusiasts, radio amateurs and the like, they are prepared to turn out in their own time to look after the talking book readers in their particular area. The majority of readers have a servicing volunteer to whom they can turn in case of difficulty, but, with membership likely to go on expanding, of course, the need to enroll more volunteers increases.

What of future demand for the service? We can only repeat what we said in 1964: the assumption is that the library will expand steadily until such time as any blind or near-blind person who wishes to use talking books will be able to do so; with a registered blind population in Great Britain of some 113,000, the ultimate size of the British Talking Book Service is anybody's guess.

Effective Case Recording in the Rehabilitation Teacher Program

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In recent years, the home teacher, under a new name—rehabilitation teacher—has become a vital part of the rehabilitation team. The rehabilitation teacher both complements the counselor in the vocational rehabilitation program, and strives to bring the visually handicapped aged encouragement, enlightenment, and instruction in self care, the demands of daily living, recreational opportunities, and changes in attitudes and behavior problems.

Like every other profession, rehabilitation teaching does have its problems. And it is with the avoidance of one of these potential pitfalls—inadequate case recording—that we are concerned here.

Case Recording Cause of Concern In Any Organization

□ Although much has been written and many studies have been conducted embracing this particular topic, it would seem that case recording—vital though we know it to be—still remains a number one cause of concern with virtually every agency, organization, or institution where record keeping is required. E. G. Williamson, author of several textbooks on counseling and guidance, makes the following observation:

> One of the most serious weaknesses in any college personnel program is the lack of valid data received from the high school. As a matter of fact, adequate case records are not kept by most high school counselors, and most of the fragmentary information available is irrelevant. One is led to believe that counselors either do not have significant information about their students or else they are so unprofessional in their work habits that they think case records are unimportant.

The fact that this statement refers neither to rehabilitation counselors nor rehabilitation teachers is beside the point. The parallel is there, and it is all too obvious.

Actually, there is probably nothing to be said about case recording that has not already been said at one time or another by someone else much more experienced and highly qualified than I to speak on the subject. The aim of this paper, however, is to synthesize some of the more pertinent theories and formulae and perhaps to open a channel of thought which will result in a new or more effective approach. In pursuing the matter further, some highly relevant questions are in order:

1. What actually constitutes a good case record?
2. What purpose does it serve?

This article is adapted from a paper Miss Webb delivered at the 1967 American Association of Workers for the Blind annual convention in Miami Beach, Florida.

3. Who benefits from the case records?
4. What are some of the obstructions blocking our efforts in this regard?
5. How are we to cope with these barriers?
6. Recognizing the need, how do we go about developing an adequate system of case recording?

For assistance in answering these questions I have drawn upon material available from regional and federal offices of the Vocational Rehabilitation Administration, and lectures by Dr. Clayton Morgan, Director of the Rehabilitation Counselor Training Program, Oklahoma State University, and Dr. Hilda C. M. Arndt of the School of Social Welfare, Louisiana State University.

As it pertains to our program, I think of the case record as a continuing story whose author is the rehabilitation teacher, and whose leading character is the client. Problems should be stated, and any ideas for their solution should be included. Personal information about the client is requested as needed, but when asked by the rehabilitation teacher to supply such data for the records, the client must be given to understand why the information is required and to what use it will be put. The story need not be written with literary flourishes or dramatic overtones, but the picture must unfold in sequence and the thread of progress must run true throughout each succeeding chapter if it is to justify its reason for being.

Case record an aid in giving service

Dr. Arndt sees the good case record as an aid in giving helpful service to the client, and she feels that this purpose is met by bringing together the important facts about the individual, the difficulties confronting him and the situation in which he finds himself. The recorded facts are then used to understand the problems with which the client is confronted, to determine what his needs are and how these can best be met.

Benefits of good case records

The benefits to be gained from an efficient set of records covering rehabilitation teacher cases are probably more far-reaching than most of us have taken time to realize. First of all, there is the benefit to the client—which has already been discussed. Secondly, such records are useful to the rehabilitation teacher himself, his supervisor, and other professional workers in the agency who at any time may have some connection with the case. Third, a good case record provides invaluable background material for any new worker who may step into the case further down the line. Fourth, data contained in the case record may prove helpful to employers interested in the potentials of the client—although this is a matter which would naturally be handled in strict accord with the confidentiality clause requiring that no information be released without written consent of the client. Fifth, other beneficiaries are administrators in reviewing the effectiveness of the agency program, and those involved in research projects relative to the operation of the agency.

Barriers to Case Recording

☐ Dr. Morgan cites twelve barriers to case recording, which I feel are worth repeating here as being extremely apropos:

1. Sheer discipline required to overcome mental inertia.
2. Lack of understanding of why case records are essential.

3. A feeling that this is a routine clerical task, too easily postponed to a more convenient time.
4. Lack of time, or of organization of time.
5. The fallacy of feeling that we can keep essential details in mind as the case progresses.
6. Fear of misunderstanding or censure of supervisors and others.
7. Reluctance (or inability) to give adequate written expression to many noteworthy details.
8. A tendency to over-simplify the record by reflecting a popular concept of what can or cannot be done with a person having a disability, and the temptation to record only selected parts of what takes place without considering the total person and his situation.
9. Resistance to recording because of the way correction of faulty recording has been handled in the past.
10. An undue emphasis on the regulation of filling out forms, which so conditions the worker that he is indifferent to recording when it could actually be of critical importance.
11. Omission of certain critical information, in a misguided attempt to be kind.
12. The erroneous conviction that minimal use is made of the case record.

Eight additional barriers, also worthy of note, are pointed out by the Vocational Rehabilitation Administration:

1. Lack of an organized approach to the rehabilitation process.
2. Lack of clear agency standards for casework.
3. Poor caseload management techniques.
4. Inability of the worker to make decisions.
5. Lack of written case-recording guides.
6. Lack of proper training in case recording techniques.
7. Heavy workloads and inadequate clerical assistance.
8. Aversion to the use of recording equipment.

When ferreted out and recognized for the culprits they are, it is obvious that some of the above obstacles can be overcome posthaste. As an oft-quoted wit has said, however, the "impossible" will take a little longer.

Ways of coping with barriers

Some of Dr. Morgan's suggested means of coping with the more difficult of the foregoing obstacles would include more in-service training; time and motion studies to determine ways of streamlining recording procedures without sacrificing quality of work; promoting a work climate in which documented failures are used to help the worker learn; development of a glossary of terms with common meaning to all professional personnel in the agency; providing case recording guides with a wide variety of excellent case recording examples; impressing upon the worker the uses made of the case record and its value (albeit only a link in the chain, what chain is stronger than its weakest link?); and studying the case history of the client with a view toward developing further insight as to the whys and wherefores of a particular case.

There is no stereotyped pattern of case recording applicable in its entirety to every client, rehabilitation teacher, agency, or situation. In developing a standardized approach, we must remember to leave it sufficiently flexible to allow for individual differences while at the same time conforming to a general pattern of consistency. Agency programs and services must be taken into consideration, as well as the availability of community resources. Of primary consideration is the individual himself—his personality and environment; his attitudes toward himself; his family and society; and their response and reactions to him.

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A New Kind of Reading Machine Being Developed

Dr. Richard L. Longini, professor of electrical engineering and supervisor of the Medical Systems Engineering Laboratory at Carnegie-Mellon University in Pittsburgh, is working on a new kind of reading machine for the blind that will produce audible words from the coded information on the tapes used by publishers for typesetting. The one-year project is being financed by a $10,076 grant from the Health Research and Service Foundation.

According to Dr. Longini, the advantages of this new machine over others are its low cost, and the access it will provide to a much wider variety of reading materials. In explaining the new process, he said that the same tape, with minor modifications, that activates the production of Linotype, can be used in the reading machine, where it would operate a sound generator. The generator would translate the code into corresponding alphabetical sounds, or an audio code.

Dr. Longini pointed out that this audio code, called "Spelltalk," would differ in some instances from the conventional sounds of the alphabet, but he cited experiments in which pre-reading school children learned to understand "Spelltalk" as a dialect of English.

Evaluation of an Educational Testing Program for Retarded Blind Children

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Most of the material that is written about "the blind" treats of persons with a single sensory deficit: they cannot see. When blindness occurs in an infant who is also intellectually limited, emotionally insecure, and often without hearing, problems of treatment are special. Education beyond toilet training, dressing, and self-feeding is seldom achieved. When it is not attempted, the infant's life remains a tragedy. His fate is sealed if he becomes one of fifty or sixty children in an understaffed hospital residence. Nursing services, however dedicated, cannot be stretched to cover education. Educators who have never taught a retarded blind child to hold a spoon are shocked to learn how elementary instruction must be.

With the purpose of investigating the value to a retarded blind child of having one interested adult devote several hours a day to his training, a program was instituted at Pacific State Hospital during the summer of 1966. A number of students from nearby colleges were recruited to assist and to learn the social and educational values such a program has for blind children.

Activities Designed To Meet Child's Special Needs

☐ The children left their dormitory with the students to go to the activity rooms of the school. There, they met with members of the educational services staff to plan a daily routine and special activities designed to meet each child's greatest needs. Sometimes the activities were carried out by the college student alone with his charge; sometimes a number of individual activities would be going on under staff supervision in a room or a section of the playground; sometimes all the children participated in group games or exercises.

Assessments of Each Child's Abilities

☐ At the beginning and at the end of the program, assessments were made of each child's abilities and needs by the student-attendant and by four staff members. The value of the program to the children was evaluated on the basis of some observable improvement in functioning only, regardless of the amount of improvement. While one child may have learned to tie his own shoes and another to spoon feed himself at mealtime or manipulate a bicycle, another may have learned only to walk upright and find his way to the door of a room, or to step on and off a curb, or even to lift his foot so that somene else could put on his shoe. Any degree of achievement is rewarding to the child and to those who care for him.

Measurements were subjective

All measurements were subjective, based on observation of each child's successful performance that could be checked on a check sheet of activities. The planned program looked toward improvement in the functioning of abilities already developed, addition of new skills and habit patterns, independence in locomotion and self care, and participation in group concerns such as vocal and verbal communication, rhythmic games, and singing. Evaluations were made by each child's student attendant, and by members of the school staff.

Each child introduced to music individually

As each child appeared to be ready, he was introduced to music—piano, singing, recordings—in a special room reserved for him. One child screamed throughout his first session; another banged a table with no apparent rhythm until his hand was bruised; one boy lay flat on the floor, motionless, for an hour; a girl was entranced by the vibration along the side of the piano. It was some weeks before every child tolerated the music that was presented. The boy who banged the table became quiet and attentive when an off-beat "modern" record was played. Two or three children preferred to listen to the music from a distance, while others huddled close to the instrument or speaker, and still others begged for amplification via earphones. Before the end of the program some of the children were happily keeping time to music on drums, tambourine, triangle, even a dilapidated guitar, and were marching, dancing, and clapping to rhythm. It was an education for the adults to realize that much of rhythm is visual!

Making the children aware of their bodies

Early in the program, the children were made aware of their bodies and what bodies can be made to do. The attendants made them aware of rocking to and fro and swinging the head from side to side, by holding their bodies or heads and directing the movement while speaking "rock, rock, rock" or "roll, roll, roll" in strong rhythm. Some of the children learned to stop this extraneous activity and to start it on request. Others seemed not to be able to recognize the movement of their own bodies. Later, the children were encouraged to roll over, to stretch, to walk backward and upstairs and down, to stand on one foot and then on the other. Left and right as parts of the body were not mentioned, but careful observation of the preferred side helped to guide instruction that demanded hand dominance. The children were introduced to pulling and pushing, to swinging arms, to touching, rubbing, and patting parts of their bodies, all done with spoken rhythmic accompaniment. The greatest hurdles encountered by most of the children were running, jumping, walking backward, and touching feet while standing. Two of the children practiced walking with canes.

Conversation almost non-existent

None of the retarded blind children could carry on a conversation, although isolated words with appropriate meaning were heard occasionally. By the third week of the program, some of the children were able to concentrate on speech activities, listening to environmental sounds, identifying them, and associating them with their own experiences, as the sound of a car motor means stop and wait until it passes. Often after very slow reaction periods, they learned to follow simple spoken directions, sometimes recorded in both male and female voice ranges. A favorite pastime was taping and listening to their own sounds. A small group played circle games that were accompanied by both speaking and singing, each routine repeated until every child in the group responded to his name with whatever simple activity was indicated. The children seemed never to tire of repetition.

Introduction of Toys and Crafts

☐ Now the crafts room was opened for the blind children. One little girl sat in the doorway and wailed for three days in this strange environment. Her interest was finally centered on huge plastic pop beads which she would pull apart. (She did not learn to put them together.) Raffia, called "hay," was a means of catching the interest of one boy. He seemed to enjoy becoming entangled in it and working himself free, and he would repeat "hay, hay, hay" until he found the bundle of raffia on a table. A few of the children became interested in pounding and patting clay. When the supply dwindled, it was discovered that one child surreptitiously tucked bits of clay into his pocket to eat after he went back to his ward!

Favorite toys were those that needed putting things into something and taking them out again, or fitting on and pulling off. One child regularly found a plastic box filled with small plastic bottles and put the bottles in and out of the box, grunting as he did as if he were counting. Attempts to clarify the counting failed.

During the summer there were many bladder and bowel accidents, frequent tantrums, considerable throwing and tearing, and much unwillingness to try anything new, but the dedication and determination of the attendants did not waver. At the end of the training period, every blind child had made some progress toward more profitable and acceptable behavior in at least one area of activity. Most of them showed notable progress in all areas. The accompanying table shows the "improvement" areas assessed by the student attendants and school staff. Even if it should not be read through rose colored glasses, it would appear to justify further investigation, and provides some evidence that concentrated efforts of one adult with the training of one blind retarded child, even for a limited time, can be recommended.

Changes in Behaviour Observed

TABLE 1

Significant Changes in Behavior Observed in 21 Retarded Blind Children After Six Weeks of Intensive Help

Areas Emphasized	*Number of Children Who Exhibit Improvement*
Observation of Attendants	
Dressing, undressing	10
Self-care, bath, teeth, nose	14
Toileting	8
Self-feeding	8
Ambulation	13
Handling toys	11
Adjusting to routine	10
Communication	17
Release of tensions	8
Preoccupation with eyes	3
Observation of Project Staff	
Manual manipulation	18
Gross motor control	17
Rhythm and music	14
Speech development	14

This project was supported by Federal Project Grant No. 59MH06-01-1813, Title 1, Public Law 89-10.

Current Literature

Information as a Factor in Perception of the Blind by Teachers, by Frank T. Wyder, Milton E. Wilson and R. M. Frumkin. *Perceptual and Motor Skills* (Southern Universities Press, Box 1441, Missoula, Montana 59801), Vol. 25, No. 1, August 1967, p. 188. Brief report of a test of the hypothesis that the amount of positive knowledge an individual possesses about blindness is directly related to the positiveness of his attitudes toward blindness. The Wright-Remmers Handicap Problems Inventory was used.

Social Maturity, Listening Comprehension, and Intelligence in the Retarded Blind, by Lawrence C. Hartlage. *Psychology* (Box 6495, Station C. Savannah, Georgia 31405), Vol. 3, No. 4, 1966, p. 12-15. The Hayes-Binet and Vineland Social Maturity Scale were used, together with a listening comprehension selection, in tests at the Frankfort State Hospital and School in Louisville, Kentucky. Twelve blind retarded residents were matched with twelve sighted residents of the same institution.

Educational Implications of Partial Vision: New Findings from a National Study, by Ralph L. Peabody and Jack W. Birch. *The Sight-Saving Review* (National Society for the Prevention of Blindness, Inc., 79 Madison Avenue, New York, New York 10016), Vol. 37, No. 2, Summer 1967, p. 92-96. A composite portrait (drawn from facts gathered in a national study of over one thousand children) of a typical partially seeing child is given together with a discussion of implications for special education practices, vocational rehabilitation, and teacher education and research.

Counseling Service for Diabetics, by Abraham H. Kantrow. *The Sight-Saving Review* (see address above), Vol. 37, No. 2, Summer 1967, p. 73-77. Dr. Kantrow is the chairman of the Vocational and Counseling Service of the New York Diabetes Association, Inc. He presented this paper at the 1967 conference of the National Society for the Prevention of Blindness.

Disability Insurance and Aid to the Blind, by Philip Frohlich. *Social Security Bulletin* (Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402), Vol. 30, No. 8, August 1967, p. 15-18. 25c. A study of the relationship between aid to the blind (AB) and old-age, survivors, and disability insurance (OASDI), with an analysis of the general characteristics of recipients.

Blind Student on Campus: A Firsthand Report, by Marilyn Beckwith Grant. *Journal of Rehabilitation* (National Rehabilitation Association, 1522 K Street, N. W., Washington, D. C. 20005), Vol. 33, No. 4, July-August 1967, p. 28-29. $1.00. Mrs. Grant, who lost her sight at the age of six, received her B.A. degree in social welfare from Fresno State College in California.

Developmental Considerations in the Occupations of the Blind, by Dorothy Burlingham. *The Psychoanalytic Study of the Child* (International Universities Press, Inc., 227 W. 13th Street, New York, New York 10011), Vol. 22, 1967, p. 187-198. $12.00 (an annual). Some suggested solutions to problems of suitable games and appropriate toys for young blind children, based upon the author's experience in work with blind children in the Education Unit of the Hampstead Child-Therapy Course and Clinic (London). M. M. R.

News in Brief

■ The educational programs for the partially sighted, long conducted by the National Society for the Prevention of Blindness, have been transferred to the American Foundation for the Blind. The boards of both organizations have approved the tranfer and the details of the change are now being worked out.

This change in responsibility is the result of a review by NSPB of its services, and a realization that in recent years the differences in technique between services for the partially sighted and services for the totally blind have become minimal. Since AFB performs services on behalf of the legally blind similar to those NSPB has been performing on behalf of the partially sighted, AFB was approached about assuming the additional responsibility which, following staff and board discussions, it has agreed to do.

■ Maurice L. Lien has been appointed national field representative for the American Association of Workers for the Blind. His duties in this position will include assisting in the implementation of the regionalization plan and in the establishment of state AAWB chapters.

Mr. Lien has just ended 25 years of service in the U.S. Air Force where he attained the rank of Lt. Colonel. His last Air Force assignment was in the headquarters of the Air Force Systems Command, where he was chief of the Internal Information and Community Relations Division.

■ An Institute on the Blind Child Who Functions on a Retarded Level will be held May 8-10 at the Villa Capri Hotel, Austin, Texas.

It is open to administrators, teachers, social workers, psychologists, and others interested in the blind-retarded child from Texas, Oklahoma, New Mexico, Louisiana, and Arkansas.

The agencies sponsoring the Institute are the Texas State Commission for the Blind, the Texas Education Agency of Mental and Mental Retardation, the University of Texas, and the American Foundation for the Blind.

For registration information, write to John Best, Superintendent, Texas School for the Blind, 1100 West 45th Street, Austin, Texas 78756.

■ As its centennial project, the Canadian Council of the Blind, has, through the Royal Commonwealth Society for the Blind, donated a mobile eye clinic to the city of Madurai in southern India.

The amount of money raised for this special centennial project, $10,567.19, not only covered the cost of purchasing the mobile eye clinic, but will also provide the equipment, shipping costs, and funds for the operation of the vehicle for two years. Madurai was selected as the recipient of the gift because, out of its population of 500,000, 5000 are blind.

■ Since recognition of the Society's 60th anniversary is to be a part of the 1968 Conference of the National Society for the Prevention of Blindness, the dates have been changed from April 3, 4, and 5 to November 20, 21, and 22. The change has been made to include the annual membership and board of directors meetings which must be held on November 21 according to the Society's by-laws. The conference will be held at the Hotel Roosevelt in New York City.

■ The University of Southern California has announced its Seventh Annual Distinguished Lecture Series in Special Education and Rehabilitation for the summer of 1968. The lectures are free and open to the professional public.

Further information about the lectures —dates, speakers and subjects—can be obtained by writing to Mary Jane Ayres, educational psychology department, University of Southern California, Los Angeles, Calif. 90007.

■ Mrs. Carolyn B. Hearn has been appointed librarian of the newly established Rhode Island Regional Library for the Blind and Physically Handicapped. The new library is located in the Department of State Library Services, 95 Davis Street, Providence, Rhode Island 02908.

■ The Bethlehem Lions Club, Bethlehem, Pa., recently celebrated the 45th anniversary of its founding—and, along with it, 45 years of support for work for the blind. The club was instrumental in the organization of the Northampton County Branch of the Pennsylvania Association for the Blind in 1928 and has been one of the agency's most active supporters ever since. The club is also a supporter of the Northeast Eye Bank and Pennsylvania Eye Research.

■ The nineteenth consecutive summer program of the Beacon Lodge-Camp for the Blind will begin on June 22. The camp, which is located near Mount Union, Pa., provides a recreation and rehabilitation program for blind and visually handicapped adults and children. The cost per person is $65 a week. For further information and registration and health forms, write to: Carl Shoemaker, Co-ordinator, Beacon Lodge-Camp for the Blind, Box 222, Lewiston, Pa. 17044.

■ The Seeing Hand Camp for the Blind will be held the week of August 4-10, 1968. For further information, contact Ethel C. Elikan, Seeing Hand Association, Inc., 737 Market Street, Wheeling, W. Va. 26003.

■ The Minneapolis Society for the Blind has announced that Raymond D. Relaford has been appointed director of its regional rehabilitation center. The center, which was organized in 1957, provides personal adjustment services to blind adults throughout the midwest.

Mr. Relaford comes to his new post from the Missouri Bureau for the Blind, Jefferson City, where he served as supervisor of rehabilitation.

■ The Ansley Dissertation Award, the highest honor a student in the graduate facilities of Columbia University can receive, has been given to John Gwaltney for his doctoral thesis on the social consequences of a blinding disease on the residents of a small Mexican village.

■ *The New York Times "Large Type Cook Book,"* by Jean Hewitt of the *Times* staff, will be the first title in a new series of general interest and reference books to be published jointly by *The New York Times* and the Golden Press division of Western Publishing Co.

The new cook book, to be published in September, will be a 400 to 500 page collection of general recipes from the *Times*. It will be set in 24 point type and is intended for those persons who have serious vision impairments, those whose eyes tire rapidly, and for cooks who are annoyed by the necessity for close-up reference to a recipe during the actual cooking process. The text will be illustrated with two-color line drawings.

Coming Events

April 14-20 Council for Exceptional Children, New York, N. Y.

April 15-16 American Association of Workers for the Blind, Mid-West Regional Conference, St. Louis, Mo.

April 17-19 National Rehabilitation Association, Region VI Convention, St. Louis, Mo.

April 25, 26 National Accreditation Council, New York, N.Y.

May 23-24 Model Reporting Area, Bethesda, Md.

May 23-25 4th Annual Conference of Ultrasonography in Ophthalmology, Philadelphia, Pa.

May 26-31 National Conference on Social Welfare, 95th Annual Forum, San Francisco, Calif.

May 27-29 National Rehabilitation Association, Region II Convention, New York, N. Y.

May 27-29 United Community Funds and Councils of America, Campaign Leaders Conference, Detroit, Mich.

June 3-7 National Rehabilitation Association, Region VIII Convention, Casper, Wyo.

June 12-14 National Rehabilitation Association, Region I Convention, New Haven, Conn.

June 15-16 American Diabetes Association, San Francisco, Calif.

June 23-27 American Association of Instructors of the Blind, Toronto, Ont., Can.

June 26-28 National Association of Hearing and Speech Agencies, National Conference, Bal Harbor, Fla.

July 2-5 National Federation of the Blind, Annual Meeting, Des Moines, Iowa

July 7-10 American Association of Workers for the Blind, Toronto, Ont., Can.

July 21-28 Blinded Veterans Association, Annual Convention, San Francisco, Calif.

July 31-Aug. 5 World Organization for Early Childhood Education, Washington, D. C.

Aug. 18-24 International Council on Social Welfare, International Council of Social Work, Helsinki, Finland

Aug. 26-29 American Sociological Association, Boston, Mass.

Aug.-Sept. 3 American Psychological Association, San Francisco, Calif.

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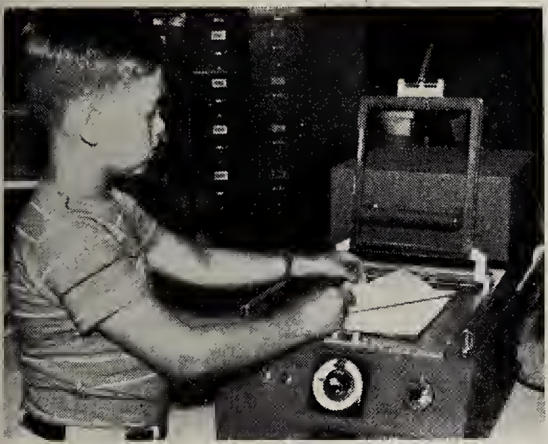

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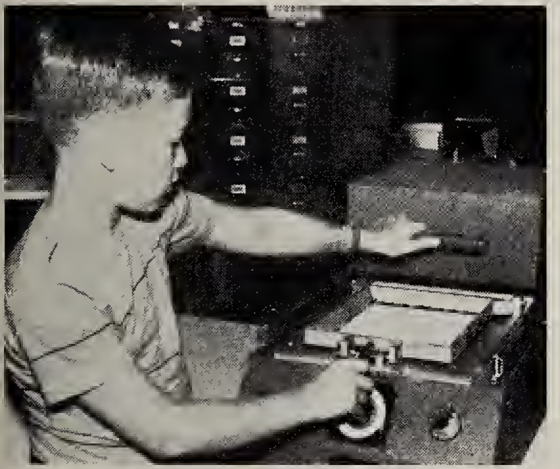

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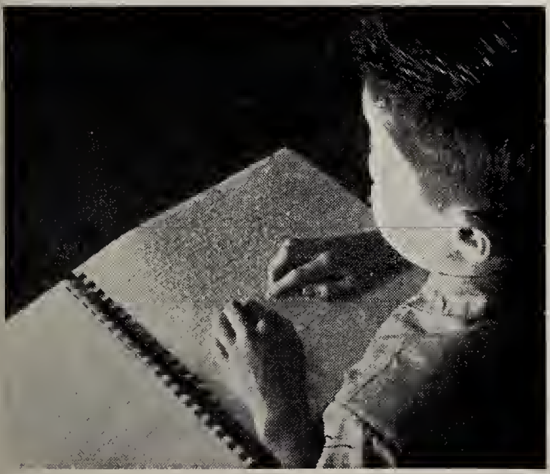

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THE NEW Outlook FOR THE BLIND

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Reactions to Loss of Body Parts—Some Research Priorities in Rehabilitation

H. ROBERT BLANK, M.D.

Dr. Blank is associate clinical professor of psychiatry at Albert Einstein Medical College in New York City, and associate editor of The Psychoanalytic Quarterly.

In my clinical experience with the psychological problems of blind persons (and other handicapped), and in work with hospitals, social agencies, and rehabilitation centers, I have noted that many blocks and failures in education and rehabilitation are primarily attributable to factors other than the handicaps per se, notably:

1. Failure to adequately prepare patient and family for the eventual handicap when such preparation is possible.
2. Failure to deal promptly, and in a sustained fashion, with the predictable major emotional disturbances in patient and family in those cases in which there is no opportunity to prepare them for the handicap; e.g. in congenital blindness or blindness due to accident.

Therapeutic Trial Can Clarify Prognosis

☐ The net result of the operation of these adverse factors is that, in the typical case of a child, when the worker in rehabilitation first sees the client, he is confronted with an impossible etiologic diagnostic problem. Try to differentiate the combination of severe learning disability, mental retardation, and personality disorder attributable to blindness plus brain damage, from that attributable to inadequate and consistent social and educational stimulation. Six months to a year of a therapeutic trial, with child in a good home, or in a good residential school, and with a therapeutic program geared to the needs of the individual child, can clarify the prognosis as to educability and reversibility of damage (6). Often the damage is irreversible. Adequate therapeutic trials of this kind are unavailable for most severely disabled multihandicapped children and adequate long-term multidisciplinary treatment facilities are almost non-existent. Most of these children become state hospital or state "school" custodial cases.

Prevention is the Most Important Function

To restate the thesis: Prevention is the most important focus. Psychologically sound work with patient and family during the medical and surgical treatment phase is essential to the later definitive education or rehabilitation of the handicapped person, child or adult. Because this critical aspect of *prevention* of educational and rehabilitational failure is so widely ignored, I shall now give it detailed consideration as it pertains to the handicapped child.

Reactions of Children to Loss of Body Parts or Functions—Treatment Teaching and Research Considerations

☐ The reactions of children (and their parents) to loss of body parts or body functions is virtually an unexplored field in terms of *systematic* teaching and research. These unmet needs are particularly striking because there exists

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This article has been adapted from a paper Dr. Blank delivered at a Research Consultation Concerning Needed Research in the Behavioral Sciences and the Humanities with Reference to Work with the Blind. The meeting was held in University Park, Pennsylvania, in April 1967.

a considerable body of knowledge on the subject exemplified in the references and selected bibliography. This knowledge can be taught, and can serve as the theoretical and clinical framework for the research necessary to develop the most efficient methods of prevention and treatment of these disabling psychological reactions. Such systematic teaching and research could be incorporated into the federally and state subsidized pediatric treatment and research facilities that are currently being planned and constructed, typically as parts of major medical centers.

As an example of an appropriate treatment teaching and research model for medical centers, I have suggested that the research team (representing the disciplines of psychoanalysis and psychiatry, clinical psychology, social case work, sociology, and rehabilitation counselling) study the following four categories of children:

Studying categories of children

1. Congenital blindness, deafness, malformation, and other disorders: Congenital handicap, often multiple, represents initially a severely traumatizing loss for the parents, especially for the mother, and careful interpretive and supportive help for the parents is essential as soon as the diagnosis is made. If such help is not provided, the child will not receive optimal mothering, and its optimal development, and the results of education and specific treatment, will be compromised.
2. Children suffering accidental loss of body parts or functions: Obviously, in these cases as in the case of congenital defect, there is no opportunity to provide child and parents with preparation for the loss. Psychologic study, treatment, and research with these children and their parents should begin in the hospital emergency room, continue throughout the hospital stay, and later during the outpatient rehabilitation period.
3. Children requiring surgery that results in loss of a body part or function, including cases in which the only external sign of a loss is a prominent scar, and those who have to be immobilized for prolonged periods.
4. Children suffering from diseases that predictably are fatal or lead to blindness, deafness, or paralysis.

In the last two categories there is obviously opportunity to prepare child and parents for the loss, as well as to help them to cope with the loss post facto. For example, in the case of infants and children with limited verbal capacity, we should strive to preclude separation from the mother. If rooming-in is unavailable, the periods of separation from the mother during hospitalization should be minimal throughout the entire hospitalization. Nursing staffs and hospital boards of trustees, among others, still require education and reeducation on this point.

Clinical Considerations—Physician Has Primary Responsibility

☐ Psychologic preparation of child and parents for the loss is the primary responsibility of the physician in charge of the case, the one who has to make the medical or surgical decisions. The psychiatrist can provide the physician in charge with insight and guidance on the timing and technique for such preparation. He can provide the necessary psychotherapy that is frequently indicated even with the best preparation. But the psychiatrist, psychologist, or case worker should not be expected to take over the primary interpretation to child and parent of the medical problem, the indicated treatment, and what results may be anticipated. Too often this preparation is evaded, the need for it denied and rationalized away, with serious psychologic consequences. As I have indicated, many later complications and failures in education and rehabilitation are attributable to grossly inadequate psychologic preparation for loss which leaves the patient anxiously confused and distrustful, and hostile to all physicians and anything associated with hospitals, agencies, and other institutions. In contrast, the following case is instructive:

Case Studies

☐ *Case I:* An ophthalmologist consulted me about a ten-year-old boy, blinded accidently in one eye two weeks previously. The ophthalmologist now felt it was urgent for the blind eye to be enucleated, but he was "panicked" at the idea of telling the boy, to whom he had become very attached. The boy and his parents were intelligent, stable personalities and most cooperative with treatment thus far. It was recommended that after prior "clearance" with the parents, the ophthalmologist interpret the situation to the boy in the presence of his parents. Accordingly, he was told that there was no chance of restoring vision to the eye, it had to be removed because it endangered the normal eye, it was indicated cosmetically, and that he would be fitted with a prosthetic eye that would match his normal eye. The ophthalmologist had been prepared for a more serious reaction than the boy's relatively mild anxious depressive response. Surgery was performed the next day; net result: an actively cooperative patient and family.

In similar medical situations, because of neurotic predisposition and other factors, the surgery might be resisted, or it might be followed by prolonged severe depressive reaction in spite of skillful honest interpretation prior to surgery. But the physician in charge is in a far better position to deal with the total problem, including successful referral for psychotherapy, if *he* emerges from the traumatic situation as someone who can be trusted, and who will help the patient live and develop productively with the handicap.

Handicap and disability not necessarily synonymous

I prefer not to use the terms *handicap* and *disability* synonymously. The handicap is the objective limitation that has to be accepted as a fact if rehabilitation is to succeed. The disability of a handicapped child or adult, although frequently attributed to the handicap, is often chiefly the result of serious personality problems that are not obvious, or far less obvious than the handicap. Such disability can be markedly reduced by adequate interpretation, beginning with the initial contacts of the physician with the child and his parents.

Case II: A colleague consulted me about a 13-year-old boy with ulcerative colitis, treated for six years by an internist. After the latest and almost fatal recurrence and subsidence of colitis, the findings seemed to indicate resection of the bowel, and the physician was preparing the boy physically, but not psychologically, for the surgery. The psychiatrist was called in "to get the child's agitated mother off the internist's neck."

I suggested it was essential for the internist to give the boy and the parents a simple and direct anatomic and physiologic interpretation of the illness. And, if surgery was decided upon, both parents and the patient should know what was going to be done and the net result, an ileostomy. It was clear that the mother would need prolonged psychotherapy, but it appeared that the internist would be able to handle the emotional repercussions in the boy.

Medical frankness alone often results in improvement

The suggestion was followed. The boy, an undersized constricted personality, had established a passively dependent and compliant relationship with his doctor and hospital staff. Outside he was depressed and asocial, subtly provoking his mother's agitated anxious and hostile demands on the internist. Medical frankness with patient and family, and psychotherapy for the mother resulted in marked improvement in the emotional climate of the home and in the boy's total functioning. He became more active, alert, and sociable, and his physical condition improved surprisingly. Even though he was prepared for surgery, it proved to be unnecessary. This continued to be the status one year after our intial consultation.

It is no more than suggested that the sustained physical improvement was related to the improved psychologic handling of child and family. What is emphasized is that, with or without surgery, honest interpretation is far more likely to produce a cooperating patient and family than evasiveness and false reassurance.

Depression Is Normal Reaction to Loss of Body Part or Function

Often in consultations and in seminars on the subject of preparing child and family for the loss of body part or function, the question is asked, "What do you tell them?"; e.g., in cases where blindness is anticipated or an amputation has to be performed. This question covers an unconscious demand: "Give us the magic formula with which I can preclude the intolerable reaction that the dreadful news will produce". No one wants to be the bearer of sad tidings, especially the physician whose job it is to cure and relieve suffering. If, however, the physician clearly understands that a grief reaction, a manifest depression, is the normal reaction to loss of a body part or function (as it is to loss of a loved one), and that he can materially help the patient through the painful and frequently prolonged period of mourning, he will have less difficulty in finding the appropriate words with which he can honestly and supportively convey the sad news.

Coping with pathologic reactions

If the physician has reason to suspect in a given case that child or parent is predisposed to pathologic reactions to loss, it is all the more important not to evade the issue, but first to consult with a psychiatrist. Such consultation will not only be of immediate assistance but can provide in advance the means of coping with anticipated and unanticipated pathologic reactions.

At worst, honest and considerate preparation of patient and family will produce fewer serious emotional and physical complications than the too common policy of "evade now, try to pick up the pieces later." At times the practice of evasion and denial by physician and parents would appear ridiculous if not tragic; for example, in the case of a child with leukemia whose physician and parents persist anxiously in keeping secret the nature and name of his illness from him after the child has been told bluntly and cynically by fellow patients in the hospital that he has leukemia and that he will die from it. The anxiety and guilt-laden disturbances of communication that characterize such secrecy provide a vacuum which inevitably becomes filled with the child's most distressing fantasies.

Child's worst fear is fear of abandonment

It cannot be overemphasized that the child's worst fear is the fear of abandonment, not the fear of death which, to the extent that it can be conceptualized, tends to be reacted to in terms of abandonment. What is more difficult for parent and physician to understand is that disturbed communication between parent and child, between physician and child, constitutes a form of abandonment, in spite of their physical presence, to which the child is very vulnerable.

Application to Adult Handicapped

☐ What has been said about prevention of psychologically determined disability in the medical-surgical treatment of the handicapped child, applies also to the handicapped adult.* Space does not permit more than a brief case history to highlight the application: A 58-year-old diabetic man, blind for four years, with a preceding six-year history of retinitis, was brought by his wife and son for consultation because of a chronic severe depression and angry resentful intolerance of any attempts at rehabilitation. He had been a successful business man, more than adequate as husband and father, until visual impairment made it impossible for him to work. His internist and ophthalmologist had never honestly interpreted to the patient or family the nature of the illness and possible permanent visual impairment. Rather, they handled the situation with a pollyannish optimism until the man was almost totally blind; whereupon patient and family were rather abruptly told that it was unlikely his vision would improve and the man was referred to a rehabilitation agency. This produced a severe state of shock and depression, with the patient angrily refusing to see his doctors. Aided and abetted by his family, who believed that blindness was obvious reason enough for dependency, he embarked on years of medical shopping all over the United States for a magical cure for blindness, rationalizing that he was not really blind because of his variable (but not very useful) light perception. When he was finally convinced the quest was hopeless, he was taken to a rehabilitation agency where his hostile, depressed, and demoralized state made psychiatric consultation imperative. Prognosis for rehabilitation was poor.

Colossal human and economic waste of this type is largely preventable! And those primarily responsible for the practice, teaching, and research of prevention are the personnel who have the initial contacts with the handicapped individual in medical office, hospital, and clinic.

The Generic Approach

☐ In my outlines of the multidisciplinary diagnostic-treatment-teaching-research team** approach, my stress on the application and expansion of existing knowledge, and in my case examples, it should be clear that the psychological principles and their psychotherapeutic use to prevent and treat serious psychogenic disability applies to any handicap. This in no way denies that every handicap provides specific problems, or that every handicapped person has his unique assets and limitations. But delineation of what is specific to a given handicap is hardly possible without knowing the generic predictables that can be anticipated in dealing with any person who has suffered a serious loss, and with his family. Thus we still hear about traits and personality disorders attributed to blindness that have no such specificity.

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* While I have been stressing services for the handicapped child in the foregoing I am not overlooking the demographic facts concerning blindness and other severe handicaps, and, in view of these facts, the inappropriate and disparate apportionment of services that discriminate against the middle aged and elderly handicapped population. See Scott (19) for an excellent exposition of the demography of blindness and its implications for the unmet needs.

** For data on multidisciplinary team work in social agencies and rehabilitation centers see (3) (7) (8) (9).

For example, in my discussions (5) (8) of *sudden* blindness, I indicated a characteristic sequence of severe psychological reactions: an acute depersonalization followed by a more prolonged depression. If my experience had been limited to blinded persons, I might have been convinced that the sequence was specific for sudden blindness. However, I had observed the depersonalization-depression sequence after traumatic leg amputation, and in two patients following bowel resection and colostomy for which they had not been prepared. Hence my conclusion that the sequence tends to be evoked by the *sudden loss of any major body part or function.*

That the depression following such loss represents a state of mourning for the lost part is directly indicated by the frequent use among handicapped persons of the expressions, "my dead arm" or "my dead eyes."

Rigidity and resistance to change

My emphasis here, and in most of my papers on the subject, on the need for generic professional training receives strong support from Scott (19). His intensive study of agencies serving the blind reveals that many individuals in control of agencies have "highly specialized expertise" but lack generic professional training. Their limitations are hallmarked by rigidity and resistance to change, and they are incapable of functioning outside ingrained boundaries.

The teaching of generic knowledge applicable to handicapped persons in general should begin during the education of physicians, teachers, nurses, case workers, and other workers involved in rehabilitation. In postgraduate work and training, the learning, under expert supervision, of the specifics about particular handicaps can then proceed on a more solid base. Since undergraduate education and postgraduate work is often grossly defective, and since new facts and improved techniques are continually emerging from clinical and other research, learning about the generic and the specific should be a never ending goal of in-service training in schools, social agencies, and rehabilitation centers for the handicapped.

It is my conviction that this goal is a sine qua non for recruiting and training of competent professionals for work with the multi-handicapped. It is essential for optimal intercommunication and collaboration among workers in different fields of rehabilitation who now tend to be isolated and insulated in their respective fields.

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Screen Pads For Longhand Writing

ELISABETH D. FREUND

Mrs. Freund is curator of the Touch and Learn Museum at the Overbrook School for the Blind, Philadelphia, Pennsylvania.

"This is unbelievable," people usually say when they see the many pages written in longhand by a totally blind girl, a graduate of Overbrook School for the Blind, where she learned the skill of longhand writing in about three months. "We even can read what she wrote—is she really blind?"

This girl's achievement was due to her enormous energy and her determination to learn how to write so that she would be able to communicate with sighted students on the blackboard, should she reach her goal of becoming a teacher. She is a remarkable exception—but the signatures of our last senior class are not so bad either.

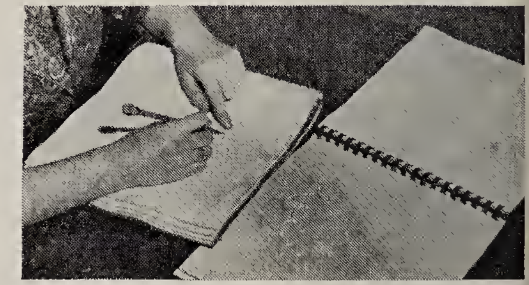
Screen Pads Shorten The Time Needed To Learn Longhand

☐ Instrumental in producing these good and quick results is a new approach to teaching longhand writing to the blind. This new approach involves the use of screen pads in combination with the usual embossed and engraved sample letters. I don't know who invented screen pads. But whoever it was had an excellent idea. It shortens the handwriting learning process so much that most students learn to sign their names in a few weeks; one even did it over a weekend. Of course, this does not eliminate the fact that some students have heavy hands, and others do not have enough intelligence to learn it at all.

Making the pads

Our screen pads consist of ordinary window screening stapled to strong, pressed paper board measuring 13 by 16 inches. The sides of the pad are bound with masking tape, so that the fingers will not be injured by the open metal threads. A sheet of thin paper is fastened to this pad with two rubber bands. If an oil crayon is used on the paper, the oily material of the crayon is held to the paper surface by the many little holes of the underlying mesh. Thus, the student can feel a stroke; the blind student can "see" *what* he is writing—*while* he is writing!

The paper used must be thin, like newsprint paper; thicker paper will not give the same results. The paper sheets need embossed lines, 1½ inches apart, which can be made with tracing-wheels or a braille printing machine.*



At first, the practiced letters will very often extend over two or, in the case of the letter F, over three spaces and be very large; but as soon as the student masters the letters of his name, he can practice (still with crayon on the pad) in the much smaller space between two lines. At the end, he will advance to writing with a pencil or pen on ordinary paper, clipped to a grooved cardboard. Then he is on his own; he can no longer feel the script, but his mental picture of the letters should be so good that he can produce a legible signature.

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* The American Printing House for the Blind is now embossing the sheets in quantity.

A Manual Prepared

☐ We prepared a manual for use by the students, and reproduced it in braille on the thermoform machine. Each letter is illustrated by an embossed sample letter, for which we used string dipped in Elmer's glue. An additional booklet shows the letters engraved (or depressed). These, too, were made of string and glue, but in mirror script so that the reversed thermoform page gave a depressed letter. An inkprint edition of the manual was added so that parents or sighted friends could help, if necessary.

All details of each letter explained

The manual is written in very simple language and encourages the students to "do it themselves." All details of each letter are explained. First, the student studies the manual and feels the embossed letter with his forefinger until he is sure of its form; then he follows the grooved letters with a blunt pencil, or its eraser end, many times. (To avoid puncturing the grooves, the thermoform sheets are backed by a layer of foam rubber). Only when the hand muscles are acquainted with the unaccustomed movement, should the student proceed to writing with crayon on the screen pad.

We wrote the manual while working with a trial group, and soon realized that a long preface was needed; for example, the correct posture for body and arms has to be explained. To write braille the stylus is moved straight up and down, while to handwrite the hand must glide slowly from left to right on its heel. The crayon has to be held in a very different way from the stylus. The left hand—or with lefthanded students the right hand—has to be used as a guide to find the line on which the letters have to stay to control the writing. There are no contractions or capital letter signs. All of these apparently small details have to be explained very explicitly.

Letters simplified as much as possible

We took great care to make the letters as simple as possible, omitting all the little hooks and curls that stem from the time when monks embellished their scripts with them. Why should blind students be burdened by them?

The whole manual was based on a thorough reading of all the literature available. We use the grouping of the alphabet into "Pointers, Mounds, Tails, etc." as introduced by Dr. Marks. We also contacted other persons in the country who are interested in this field. Of special help was Mrs. Claudell S. Stocker of the Kansas Rehabilitation Center for the Blind, who gave valuable advice; for instance, she recommended a raised dot at the beginning of each sample letter so that there is no doubt where to begin. She also stressed how important the forefinger of the writing hand is for tracing the sample letter. Mrs. Stocker has also put the text of our manual on tape.

Experiences With Trial Group

☐ We began with a trial group of seven students—all totally blind, and ranging from 13 to 19 years of age; they were taught from the end of January 1966 to the end of May 1966 twice a week for half an hour, very often even less, since many other activities had preference.

Two of the students gave up after a very short time because they had other commitments. The oldest in the group was the girl who learned to write fluently. Two girls of 16 and 17 had "heavy hands." They worked hard and learned the basic letters in barely four months, but their signatures did not look very good. One boy of 13 did not have the needed persistence, failing to attend classes regularly, so that he was dismissed. It taught us that elementary students often are not ready for handwriting.

Constant Practice Necessary

One boy of 14 was able to write short notes and letters after only eight weeks of instruction. In fact, his mother complained that he did nothing but write letters on weekends, neglecting everything else. Of course, he received a lot of praise from his admirers with the result that he did not think it necessary to come for lessons any more. But after some weeks it was impossible to decipher what he wrote; too many mistakes had crept in. Therefore, we now encourage the students to restrict themselves to signing their names, but to practice this at least once every day. Without constant practice, it would be a waste of time to learn the whole alphabet. For these reasons we think that it is of no use to begin handwriting instruction for totally blind students in the lower grades.

The graduating students of 1966 took the manuals home to learn by themselves over the summer. They were eager to do so, and from their letters we saw that most of them succeeded and seemed to be enthusiastic about the new method.

In the 1966-67 school year, signatures were taught to the senior class by two of our English teachers for six weeks. The results were good. All partially sighted students improved their handwriting considerably; all totally blind students, with one exception, learned to write their names (see statistics).

Progress of Twelfth Grade Braille Students in Handwritten Signatures
Six Weeks Period

Student					*Previous Experience*		*Results*			*Remarks*
Male	*Female*	*Age*	*Totally Blind*	*Partially Sighted*	*Hand-writing*	*Print*	*Dropped Out*	*Mediocre*	*Good*	
	x	21	x						x	Did very well, can sign checks
	x	19		x		x			x	Acceptable signatures
	x	18		x	x	x			x	Learned in public school
	x	21		x					x	Very little sight, had never written before
	x	22	x					x		Will probably forget it soon
	x	19	x					x		Acceptable, but not really good, may improve
	x	19	x							Acceptable, but not really good, may improve
x		18		x		x			x	Acceptable
	x	18	x					x		Acceptable, but not really good
	x	17					x			No progress
x		19		x		x			x	Improved his previous learned signature
x		18		x		x		x		Did not practice

Should the Blind Be Taught Longhand?

☐ There remains the basic question: Do totally blind people really need instruction in longhand writing? Isn't the typewriter their best means for communication with the sighted world? There is no doubt that all blind people should at least try to learn how to sign their names. It is humiliating for an adult to have to sign a check or any other document with an X.

The adult blind who, before losing their sight, were able to write in longhand, should be encouraged to retain this skill. The screen pad method will help to improve or regain their ability to handwrite so that they are able to leave a note or write a letter, if necessary. Some rehabilitation centers and one group of home teachers have worked with our new manual for a year, and report good results with their clients whose memory of letters soon returns when they can feel them with their fingers.

Majority of totally blind should confine themselves to signatures

The majority of totally blind persons should confine themselves to signatures. If their handwriting is not perfectly correct,—and how can it be without constant practice—their sighted friends will not be able to read it. An illegible, deceiving message is worse than no message at all.

This does not mean that certain persons, such as the girl about whose success we reported at the beginning, or some blind college students and professors, are not able by intelligence and perseverence to do the almost unbelievable. But—and this should be considered seriously before beginning to spend a lot of time on full handwriting—without constant practice even these extraordinary people might soon forget their skill because they cannot control it.

"Touch Me" Exhibition Held in Houston

Last year, the Masterson Junior Gallery of the Museum of Fine Arts in Houston, Texas held its first "Touch Me" exhibition to provide both blind and sighted persons with an opportunity to perceive the beauty of objects of art through senses other than sight. The exhibition, a collection of sculptures and other three-dimensional art objects, was such a success that the Junior Gallery held a second, and greatly enlarged, "Touch Me" exhibition this year.

Works of Many Well Known Artists Included

☐ The show, which was made up of pieces from private collections, the museum's permanent collection, and works donated by the artists themselves, included works by many well known sculptors, including Henry Moore, Jean Arp, William Zorach, Harry Bertoia, Marino Marini, Noguchi, Rodin, and Takiguchi. Along with conventional sculptured forms, a number of offbeat objects such as a 19th century English carousel horse, an African ceremonial ladle, an Indian basket, and an African antelope headdress were shown. Two of the objects, "Tonal Piece" by Harry Bertoia, and a bronze wind bell by Paolo Soleri, could be perceived through sound as well as by touch.

Works were placed for easy access

All of the objects were placed so that visitors would have easy access to them. Most of the individual sculptures were mounted on pedestals behind a wooden railing. Tall pieces were placed directly on the floor. Many of the very low objects were placed directly on the floor so that blind children could easily find and touch them. Braille cards placed on the railing in front of each work identified the artist, the title of the work, and the material used to execute it.

—Earl A. Elliott

Developing and Evaluating a Simplified Braille Writing Device

RUTH L. BARR, O.T.R.

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This paper deals with the development and testing of a portable pocket braille writing slate. It permits writing from left to right, rather than from right to left, as is necessary with the conventional braille writing device.

The simplified slate was developed to eliminate the mirror image problem. This slate consists of two metal plates. The bottom plate is provided with embossed projections which are grouped into braille cells. Each cell contains six embossed projections. The simplified slate consists of four rows of twenty-seven cells in each of four rows. There are four pins, one in each corner, to hold the paper securely. The top plate of the slate is provided with guides indicating the positioning of the characters to be written in each cell. The two plates are hinged on one end.

Description of New Slate

☐ The stylus consists of a metal rod 1/16″ in diameter, the end of which is hollowed out in a hemispherical shape complimenting the projections on the bottom plate. It is mounted in a wood or plastic handle similar to an awl (see Fig. 1). The rounded handle is cupped in the palm of the hand, holding the rod in an upright position. The stylus is used to press over the projections to form the embossed dots immediately on the front side of the paper. This is similar to using a cookie cutter in that the impression is made by pressing on top of the projection.

Dots formed from left to right

The author worked out this method to overcome the difficulties of the conventional slate by providing a slate which is simple to use because the dots may be formed from left to right in their proper order and arrangement. The dots or characters are written in exactly the same manner in which they are read and the writing of braille is therefore no more difficult than reading braille. The simplified braille slate eliminates the necessity of learning and writing the impressions backward because it permits the writing of words in the order in which they are read. The method also permits the reader to read back or to check over the dots or characters without removing the paper from the slate or reversing the paper, both of which are necessary with the conventional slate. Reading the impressions can be done immediately by lifting the top plate and running the fingertips over the impressions from left to right. The difficulties encountered in arithmetic or mathematical problems with the conventional slate and its mirror image are eliminated by the simplified slate.

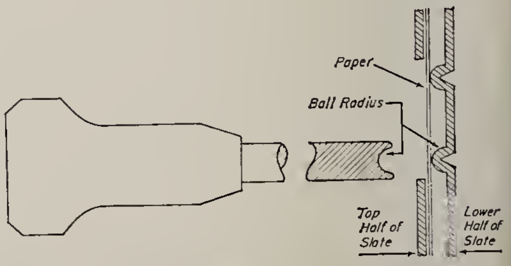

Fig. 1 Simplified Slate and Stylus

When a grown person is blinded, particularly in middle age or later, the difficulty of learning to read and write braille is greatly increased. The sense of touch is not acutely developed, the fingers are not nearly so sensitive; and the confusion between the totally different braille dot arrangement and the visual appearance of letters with which the blinded person was formerly accustomed makes it difficult for older persons to acquire proficiency in braille.

Research Basis for Developing Simplified Slate

☐ Measurements of a standard dot size made by the conventional slate were obtained from the American Printing House for the Blind, Louisville, Kentucky.

A template of four cells was made to produce the best readable dot for the greatest number of blind subjects, four different shaped dots were used, one shape for each cell. There were no variations with regard to the height of the dots. The variations were in the ball radius. The cells were designated by the letters A B C D. The dot tip radius of A was .022″; B .031″; C .030″; and D .025″.

Five corresponding hollowed-out concave shaped styli were designated by the numbers 1, 2, 3, 4. Stylus hollow 1 was .024″ ball radius; 2, .033″ ball radius; 3, .032″ ball radius; and 4, .027″ ball radius.

In the experiment, all possible combinations of styli and dots were used simply to check the best readable dot for the greatest number of blind subjects tested (see Fig. 2).

Cell	*A*	*B*	*C*	*D*
Stylus 1	1	1	1	1
Stylus 2	2	2	2	2
Stylus 3	3	3	3	3
Stylus 4	4	4	4	4

Fig. 2 Combinations of Stylus with Cells

The nine subjects tested were all adults who could read braille. Two were teachers at the Missouri School For The Blind, two were students, four were housewives, and one worked in a medical reference room in a hospital.

The twenty-six letters of the alphabet were chosen at random in all the combinations for each dot and stylus. Example: cell A with stylus 1, cell A with stylus 2, cell A with stylus 3 etc. (see Fig. 2). A complete set with every combination of cell and stylus consisted of sixteen slips of paper, i.e. each student had sixteen slips of paper to read for the test. The tests were given individually. One slip of paper with the brailled letters was placed in front of the subject. The subject was told fifteen additional slips would be handed to him, one at a time. The subject was told the test was for speed and accuracy in reading the brailled letters of the alphabet. The slips of paper were handed to the subject in random fashion. He was instructed not to go back over the letters, but to continue to the end of the paper, once the test started. A stop watch was used to indicate the speed at which the subject read each line, and a tape recorder was used to check the accuracy of reading the brailled letters.

A double check test was given to three different teachers and one student. This second test was made with a new group of students after the results of the first tests were analyzed for speed and errors. From the results of the first test, the four best combinations of styli and cell and the four poorest combinations of styli and cell were given to four other blind subjects. These eight combinations were used as a validity check on the first test.

The evidence from these tests confirmed the findings that stylus 1 on set D was read with the greatest speed and had the fewest errors. Average speed for set D was 15.9 seconds and average speed on set B was 25 seconds (see Fig. 3). Ten simplified slates were then made using dot D and stylus 1.

Cell	*A*	*B*	*C*	*D*
Stylus 1		25 sec.		15.9 sec.
Stylus 2		22.6 sec.		16 sec.
Stylus 3		35 sec.		20 sec.
Stylus 4		25 sec.		16 sec.

Fig. 3 Double Check Scores—Average Seconds

A template with cell D and stylus 1 were sent to Nagel and Nax Incorporated, St. Louis, Missouri, a company that has engineering facilities for the production of plastics and rubber. A new vinyl paper was produced for the simplified slate and stylus. It was found that the vinyl, Seilon V.H.I. or P.F.H.I. calandered .005, eliminated the ghost dots and tears when used with the simplified slate and stylus. It was also noted that if the paper was bought in quantity, the cost would not be much more than the braille paper used for the conventional slate.

Testing the Slate With Braille Beginners

☐ The next phase of the project was to test the new simplified slates with a pilot group of youngsters just starting to write braille. This usually starts in third grade. The project continued over a period of six months.

The purpose of the study was to determine whether the present necessity of learning the braille alphabet backward and learning to write braille backward could be eliminated by the use of the simplified slate. A second question was whether the simplified slate would prove to be an efficient as the conventional slate.

Dr. Walter E. Evans, principal of the Missouri School for the Blind, agreed to have the third grade class start on the new simplified slate. The third grade class, the pilot group (PG), had never written braille on the conventional slate before. Their experience with writing braille had only been on the Perkins Braille Writer.

Mr. William H. Bucklew, principal of the Ohio State School for the Blind, agreed to give the third and fourth grade classes the tests used in the project. The fourth grade of the Missouri School for the Blind and the third and fourth grades of the Ohio State School for the Blind became the subjects in the control group (CG). These three classes used the conventional slate and stylus and standard braille paper.

Weekly evaluations by teachers

The subjects in the PG started using the simplified slate in September, 1966. The ten simplified slates and styli were kept in the classroom during the testing period from September until February. The subjects practiced only during the period allotted for writing each day—about forty minutes. It must be noted that the subjects of the fourth grade classes had been using the conventional slate a year longer than the PG; also, the three classes in the CG had the opportunity to use and practice on the conventional slates at any time. During the months from September, 1966, until February, 1967, the school was visited once a week to get a weekly evaluation from the teacher in charge. Speed and accuracy tests were not given during this time. Good formation of the characters was stressed in order to get the best readability of the dots or characters. Learning how to place the paper in the slate properly as well as how to hold the stylus in the upright position, were emphasized. At the end of December, 1966, the PG began to work for speed.

Tests given

Tests were set up using words and signs which the subjects learned during the writing periods. The material came from their daily reading and language periods. Each stimulus word in the tests was timed for three minutes. Four tests were given: Test 1—number of rows written; Test 2—number of words written; Test 3—test for speed and accuracy (number of words written accurately); and Test 4—test for speed and accuracy (number of words written accurately). The same tests were given to all the groups. The PG used the simplified slate and the vinyl paper. The CG used the conventional slate and the standard braille paper. The teacher called off each word, one at a time. She asked the subjects to spell the word aloud and to use the braille shorthand symbols whenever possible. The subjects were instructed to write the word repeatedly for three minutes.

Additional slates made with modifications

In February, 1967, ten additional simplified slates were made incorporating two changes. Sharper posts were made on the bottom plate to prevent the paper from slipping, and more prominent dots were made on the face plate for the division of every five cells. These slates were also made by hand. The experimental subjects were now able to take one slate out of the room for practice purposes. The ten new ones were kept under control by the teacher.

Results of Tests

☐ A series of tests were conducted between the CG consisting of the three classes using the conventional slate, and the PG, using the simplified slate. The purpose of these tests was to find out if there were differences in performance between the experimental and control groups and whether or not the differences were significant (see Table I). Although the differences of performance were not significant, it is interesting to note that the highest individual score for writing some of the words was done by the subjects in the PG. For example, the word "beside" was written forty-three times with two errors in the PG, compared to thirty-five times with six errors in the CG. When repeating the letters of the alphabet in three minutes, one of the subjects in the PG wrote ninety letters with only one error, compared to seventy-six letters with ten errors in the CG. The results show also that all experimental subjects in the PG learned to use the new slate and stylus whereas in the CG five out of seven used the conventional slate in one group, six out of nine in another and four out of seven in the third group.

Member of PG had highest individual score

Discussion

☐ It was concluded that the simplified slate can be used by beginners without any loss of speed and accuracy, and that it is unnecessary to learn braille backwards. It is important to note that the CG was given the standard training in reversing the braille characters before beginning to use the conventional slates. The simplified slate eliminates this instruction period. Also, when the CG began using the conventional slate, the subjects had access to the slate at all times. The fourth grades using the conventional slate had a year's training when the tests began. The PG had access to the simplified slate about forty minutes a day. The obvious reasons for this limitation was that there were only ten slates in existence, all made by hand. None of the subjects in the PG complained of fatigue during the writing and testing periods on the simplified slate. The amount of pressure needed to write the characters never became an issue with the PG as it had been suggested would occur before the project started. The dots written on the simplified slate are just as clear as those made on the conventional slate. The subjects using the simplified slate and stylus did not tear the paper as much as the subjects using the conventional slates. Ghost dots were eliminated with the new vinyl paper on the simplified slate.

Summary

☐ Research was done to produce the best readable dot from the greatest number of blind subjects tested. From the research findings, ten simpli-

TABLE 1

Comparison of test scores of experimental and control groups with mean performance, t scores, df and level of significance achieved

Conditions—Each stimulus word timed for 3 minutes.
All subjects compared in each condition.

		PG	CG	*Pertinent to Both*
Test 1.	Number of rows written			
	Mean	11.2	8.52	
	t score for significance at .05 level			2.04
	df			31
	t score			1.15
Test 2.	Number of words written			
	Mean	88.1	96.3	
	t score for significance at .05 level			2.04
	df			31
	t score			.24
Test 3.	Number of words minus errors			
	Mean	68.7	72.3	
	t score for significance at .05 level			2.04
	df			31
	t score			.01
Test 1.	Number of rows written			Ohio Grade 3
	Mean	11.2	9.4	
	t score for significance at .05 level			2.11
	df			17
	t score			.7
				Mo. Grade 4
	Mean	11.2	7.7	
	t score for significance at .05 level			2.13
	df			15
	t score			1.4
				Ohio Grade 4
	Mean	11.2	8.1	
	t score for significance at .05 level			2.13
	df			15
	t score			.34

fied slates were made. The new simplified slates were then tested with a PG of ten subjects in the third grade. This PG ranged widely in age and several had multiple handicaps. The subjects were tested over a period of six months. They were not allowed to take the slates from the room, and they practiced about forty minutes a day. There were no changes made in the ten additional slates other than those mentioned.

Advantages of simplified procedure

General observation has indicated great enthusiasm on the part of the subjects to be able to read immediately what they have written. The dots do not rub out as readily on the new vinyl paper as on standard braille paper. There were no significant differences in performance between the control

(Continued on page 159)

The Braille Informal Reading Inventory: Implications for the Teacher

ALLEN BERGER
CONSTANCE KAUTZ

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The Braille Informal Reading Inventory has been discussed in earlier articles (Berger and Kautz, 1967; Berger and Kautz, 1967) With this instrument, a more precise diagnosis may be made of the reading level and specific strengths and weaknesses in the reading ability of the blind. The need for precise measuring instruments has been indicated by Newland (1964; 1964). Earlier work along this line is noted by Frampton.

The Braille IRI is currently being validated through the testing of 150 blind children in and around Illinois.

The purpose of this paper is (1) to briefly describe the instrument; and (2) to discuss implications for the classroom teacher. The research implications of the instrument have been discussed in the earlier articles. The research reported was performed under a contract with the United States Department of Health, Education, and Welfare, Office of Education.

Description

☐ The Braille IRI is composed of a series of word lists for the pre-primer level through sixth grade; each level contains approximately twenty words arranged vertically. Following the word list section is a section containing paragraphs for pre-primer level through seventh grade; following these reading paragraphs are paragraphs for the teacher to read to the child to ascertain his listening comprehension level. The Braille IRI is based upon the diagnostic tests in the *Sheldon Basic Reading Series* (1966; 1965; 1963; 1963).

The administration of the Braille IRI takes approximately thirty minutes per child. The teacher first gives the section containing the isolated words. The child is allowed to touch briefly and say each word. If the word is not recognized immediately, the child touches the word for five seconds. Thus, information about skill in word recognition is obtained. Information about the level of word meaning is obtained by asking for the meaning of selected words.

Criteria for word recognition levels

Criteria for word recognition levels:
Independent level 99 percent
Instructional level 95 percent
Frustration level 90 percent

When the frustration level is reached, the child is allowed to return to a few words that he can recognize so that he may end with a feeling of success.

Acknowledgment is made of the cooperation given by Allyn and Bacon, Inc., publishers of the *Sheldon Basic Reading Series*. Acknowledgment is also made of the financial and spatial assistance given by Southern Illinois University.

* For a lucid description related to informal reading inventories, the reader is invited to Johnson and Kress' *Informal Reading Inventories*, published by the International Reading Association, P.O. Box 695, Newark, Delaware 19711, 44 pp.

To illustrate, the second grade level of the word recognition portion is included:

Word	*Flash*	*Untimed*
pail	———	———
it's	———	———
winter	———	———
both	———	———
front	———	———
mailed	———	———
slide	———	———
king	———	———
circus	———	———
whole	———	———
nearer	———	———
didn't	———	———
land	———	———
television	———	———
kicked	———	———
riding	———	———
close	———	———
palace	———	———
Indian	———	———
summer	———	———

The examination of the oral and silent reading ability of the child begins with the passages that are two levels below the independent level achieved on the word recognition portion of the inventory. The reading of each passage is timed. The child reads one passage orally and then, after responding to a comprehension check, silently reads another passage at the same level.

Questions follow most passages

Questions follow the reading (and timing) of most of the passages. Next to each question in parentheses is an F, I, V, or E; F stands for factual question; I, inferential; V, vocabulary; E, experiential. The small *m* and *d* stand respectively for main idea and detail. The answer to each question is recorded. If the child responds to the question correctly, a vertical line is drawn in the column under U, standing for Unaided Response. If the response is incorrect, a horizontal line is drawn. When all questions are completed, the teacher should ask, in another way, those questions to which wrong responses were given; the child's response is recorded in the column under A, standing for Aided Response.

Oral re-reading included to check child's skimming ability

ORR stands for oral re-reading and is included to check the child's skimming ability.

In some passages there are no questions; before reading such a passage, the child is told that, when finished, he should tell what the passage is about in his own words. After the timed reading is completed, the child tells in his own words what the passage was about while the teacher records the responses numerically. Thus, information about the skill of recall of memories in a sequential pattern is obtained.

Criteria for oral and silent reading levels:

Independent level:	Comprehension—90 percent related behavioral characteristics: rhythmical, expressive oral reading, accurate observation of punctuation, no evidence of lip movement.
Instructional level:	Comprehension–75 percent related behavioral characteristics: (one or more of following) arhythmical or word-by-word oral reading; inaccurate observation of punctuation; lip movement; lack of expression in oral reading; frequent requests for examiner's help; non-interest in the selection; yawning; refusal to continue.

When the frustration level is reached, the teacher should check the child's listening comprehension level by reading the passage to the child and then asking the related questions. If the child scores 75 percent or better, and responds to questions in language equivalent to the author's, the teacher should continue to the next higher passage. The listening comprehension level indicates the level at which the child should be reading.

As illustrations, oral and silent reading passages at the fourth grade level and a listening comprehension passage at the sixth grade level are included:

Fourth Grade Level—Oral

Of all the wild animals, the beavers seem to be the hardest workers. If you wander down to a beaver pond at almost any time, you will see the entire beaver family busily at work.

Father Beaver will be chewing at tall, young trees near the water's edge. Mother Beaver will be running back and forth, minding her children and watching for animal enemies. She will also be gathering small branches and pulling them to the side of the pond.

The young beavers will seem to be playing in the water. But, if you watch them carefully, you will see them dragging branches to their home in the pond.

1. (F d) Where do beavers live?
   pond____________________________
2. (F d) When do beavers work?
   all the time________________________
3. (F d) What will Father Beaver be doing?
   chewing at trees____________________
4. (F d) What two things will Mother Beaver do?
   minding the children-gathering branches________
5. (F d) What do the young beavers seem to be doing?
   playing in the water__________________
6. (F d) What are the young beavers actually doing?
   dragging branches to their home__________

7. (F d) What words best describe the beavers?
hard workers
8. (F d) What is a beaver?

A. Word Recognition Errors
Comprehension Errors

Fourth Grade Level—Silent

Man has always wanted to fly. Since the earliest days there have been myths and legends about men in flight. It was during the 1800's that men found balloons could be built which could carry them skyward. However, it was little more than 50 years ago that the first successful flight was made in a flying machine or airplane.

Americans can feel proud of the Wright Brothers, two great men in the history of early flying. Their twelve-second flight in 1903, at Kitty Hawk, was the beginning of America's mastery of the air.

1. (F d) How long has man wanted to fly?
always
2. (F d) From what have we learned of man's early desire to fly?
myths and legends
3. (F d) When was the first balloon to carry a man invented?
during the 1800's
4. (F d) How many years ago did man first fly successfully in an airplane?
a little more than 50 years ago
5. (F d) Where did the Wright Brothers live?
America
6. (F d) How long did the Wright Brothers' first flight take?
twelve seconds
7. (F d) How did the Wrights help our country?
began America's mastery of the air
8. (V) What is a myth?

B. Comprehension Errors
(To facilitate the computation of the words per minute reading rate, the examiner merely has to divide the number of seconds required for the reading into the figure on the teacher's copy of the reading paragraphs. The result is words per minute.)

Listening Comprehension—Sixth Grade Level

Nearly one hundred years before the Pilgrims landed on the shores of New England, Frenchmen fished off the coast of Newfoundland. One of these fisherman was Jacques Cartier. This brave man explored the rivers and bays of Canada and built a fort at the present location of the city of Quebec. The stories about his voyages tell us of great suffering. During the first winter Cartier and his men spent in their fort, many suffered from the cold and some died of hunger. Only the help of friendly Indians kept the rest of the men alive. Cartier was ordered by his king to find a water route to the Pacific. He failed to do this. He also failed to find gold and jewels. However, because of his voyages, the French became interested in settling Canada. After Cartier left the sea, he spent his last years in a small village in France.

Unaided Recall	*Aided Recall*	
________	________	1. How long ago did this take place?
________	________	2. What did the Frenchman do?
________	________	3. Which fisherman became famous?
________	________	4. What brave things did Cartier do?
________	________	5. Where did he build a fort?
________	________	6. What do stories of his voyages tell about?
________	________	7. What happened to the French during one winter?
________	________	8. What kept the rest of the men alive?
________	________	9. What did the king order Cartier to do?
________	________	10. What did Cartier fail to find?
________	________	11. What happened because of his voyages?
________	________	12 Where did Cartier live after he left the sea?

The teacher should observe and record the child's behavior during the testing situation. The teacher should also observe possible patterns of errors—(e.g., missing words that begin with consonant blends, missing the endings of words, missing inferential questions, or questions dealing with numbers, etc.)

Implications for the Classroom Teacher

☐ As may be discerned, the Braille IRI allows the teacher to more accurately diagnose the reading levels and strengths and weaknesses in the reading ability of the blind. At present, only the pre-primer through seventh grade reading levels are included. The reason is twofold: (1) the reading ability of children should be diagnosed early so that appropriate instruction can follow, and (2) the intent is to make as precise an instrument as possible before including the upper reading levels.

Testing the instrument

To develop a precise instrument, a research project is currently underway to test 150 blind elementary school children in and around Illinois. At this writing, 150 children have been tested in the Champaign Public School Systems, the Chicago Public School System, the Illinois Braille and Sight Saving School at Jacksonville, the Missouri School for the Blind at St. Louis, and the Evansville-Vanderburgh Consolidated School Corporation in Indiana. Preliminary results of the testing indicate the highly significant educational value of the instrument; however, there are indications that certain parts of the instrument need to be strengthened. For instance, in the vertical word lists, one word needs to be replaced because of confusion in regard to its location in the cell. And some children seem to consistently score lower on the questions pertaining to one of the passages.

Uncovering weaknesses in the instrument

It should be emphasized, however, that a major purpose of the testing is to uncover weaknesses in the instrument which, even in its present form, provides the teacher with meaningful information heretofore not available through group standardized tests. Some teachers, for instance, have reported that for the first time they know the reading speeds of their braille readers. Teachers can now see how the child uses his fingers in moving to a new line, which hand is dominant, if there is confusion in regard to contractions in braille, and the amount of touch-voice span, the last revealing if the child is reading word-by-word or in a more meaningful manner.

Reading rate and comprehension checks provide information

Not only is the teacher able to observe how far ahead of his oral reading the child's fingers are, but also what happens as the passages become increasingly difficult. Does the child, for example, change his reading rate in relation to the difficulty level of the passages? Reading rate and comprehension checks at the different reading levels also provide revealing information. For example, can the child answer questions or main ideas correctly, but not details? Many girls do poorly on questions dealing with numbers. Often a child may do poorly in comprehension because of a limited background of information. The child who has never been to a circus will have difficulty in understanding what he reads in contrast to a classmate who has been to a circus. All of these aspects of a child's reading may be ascertained by the Braille IRI.

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WAIS Manual Available in Braille

At the request of William L. Dauterman of the Division of Rehabilitation Medicine at the Stanford University School of Medicine, a master copy of the manual for the Wechsler Adult Intelligence Scale has been transcribed into braille. Brailon copies have been made and are available in four volumes. The price is $13.32.

Persons wishing to purchse the volumes must be "qualified psychologists or psychometrists" and must obtain individual permission from James H. Ricks, Jr., associate director, test division, Psychological Corporation, 304 East 45th Street, New York, N.Y. 10017, representative of the copyright owner. After he has secured permission, the braille reader can place his order with Mrs. Jean Alexander, president, North Branch Braille Transcription Project, 6th District, C.C.P.T., 1230 Payne Court, Los Altos, Calif.

In announcing the availability of the braille edition of the WAIS manual, Mr. Dauterman stressed the importance of securing permission from the publisher, saying, "We had a great deal of difficulty getting the copyright waived and did so only with the understanding that the book would not be released to anyone who was not a professional person and to no one without the copyright holder's individual permission. While this is an awkward arrangement, it is consistent with the publisher's policy concerning the sale of the regular ink print edition of test materials which must be guarded carefully if the test results from their use are going to be considered valid."

Developing and Evaluating a Simplified Braille Writing Device

—Continued from page 152

and pilot groups, but the simplified procedure has obvious advantages: the elimination of months of instruction in reversing the braille characters; writing of braille from left to right; the writing of braille characters as they are read instead of having to write them in reverse position; and the reading of what has been written immediately without turning the sheet over. The subjects can write braille using the new simplified slate without losing speed or accuracy. The new simplified slate and stylus with the new vinyl paper has proved, for the reasons mentioned above, to be superior to the conventional technique for the beginner.

Further research is to be conducted with other groups to gain insight into longitudinal effects of training with the simplified slate for both beginning and advanced students. Other subject matter such as mathematics and music will be investigated.

Fashioning Learning Opportunities For The Child With Impaired Vision

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The educator, regardless of the area of education in which he is involved, has one major goal—that of fashioning learning opportunities for each child for whom he is responsible. It is quite impossible to create better learning opportunities for any child without *an understanding of human behavior and the way learning evolves.*

At the beginning of my study of human behavior, I was saturated with the "S-R" or Stimulus-Response Theory. This theory revolved about the concept that an individual's behavior was the direct result of the forces exerted upon him. Many educators still adhere to this theory. I am sure we have all been guilty of saying:

> "If I could only make him behave this way."
> "I explained to you that this was the only way you were to do it."
> "I want you to follow directions explicitly."

Greater understanding of human behavior has shown us that behavior is not the result of the forces actually exerted on an individual, but is the result of how things seem to the *behaver.* In other words, the perceptions existing for the individual at the time the forces are exerted cause the individual to behave the way he does. Perceptions are personal and lie deep inside people. Therefore, manipulation of forces has little place in dealing with persons, but the understanding of processes which help individuals grow and develop from within is the important emphasis for all who work with personalities.

Gathering and Presenting Information Is Only Part of Teaching

☐ The belief that behavior is the result of the individual's perception at a given time calls for quite a different technique of working with persons than the mere manipulation of forces. It calls for emphasis on processes which encourage and assist persons to grow and change from within, rather than to force or coerce persons from without. This understanding has great implication for all educators. *Gathering and presenting information is only part of teaching.* A teacher must be cognizant of how the pupils perceive the material which is presented. This is the answer to the frustrating problem of presenting material carefully only to find on later questioning or testing, the pupils know little of what was supposedly taught. Teaching, then, is the complicated process of helping each individual discover personal meaning in that which is taught. This means that teaching must be deeply concerned with the feelings, likes, dislikes, prejudices, beliefs, fears, and understanding of each child. It means that teachers must work with pupils assisting and encouraging them in the process of personal exploration and discovery. And it means that teachers may even be able to create intelligence, through learning situations in which the individual's perceptions are broadened. When the individual child finds personal meaning in that which is taught, *learning takes place.* Learning can be said to be the result of the kind of teaching which has as its goal the importance of making each concept presented take on value and importance to each child. Teaching from this point of view becomes a most difficult art to acquire and several questions arise. What are the processes by which children find meaning in that which is being taught, and what are the teaching techniques necessary to bring these processes into operation?

When learning takes place

Experience Is All Important

☐ In developing answers to the questions, I turn to the philosophy of the pragmatist. The foremost word to the pragmatist is *experience.* He does not say that theories work because they are true, but theories are true because they work. Pragmatism has no prejudices, no dogmas, no rigid disciplines. The all important is the *experience,* which is of value in proportion to the positive influence it has on future experiences. The last sentence needs careful analysis —the experience is only of value in proportion to the positive influence it has on future experiences. It is not enough to say that a child learns by "doing," but a child *must have* maturity and some feeling for the value of the activity in which he is involved. *He must have* teacher direction in finding the best approach to a problem, steps to follow in solving the problem, and help in interpreting the results. *He must* have mastered some information to be able to fully utilize new information. *He must* feel secure, trustful, and confident in those with whom he works, and *accepted* and loved to be able to give complete thought to that which he is experiencing.

It is now that I consider the previously made statements in light of the child with impaired vision. What are the specifics in considering the experiences which will shape learning for these children? For the partially seeing child more *time* and *effort* are spent in developing an adequate self-concept of himself. It is through motor explorations that the child learns about himself in relationship to the world around him. All behavior is basically motor, and efficiency in the higher thought processes can be no better than the basic motor abilities upon which they are based. When physical skills improve, the academic progress of these children likewise improves.

Outdoor Activities Vital

☐ Outdoors becomes a vital environment in which to develop gross muscular activities. Low railings are excellent for bending, twisting, and crawling. A slight grassy incline is a place for rolling lengthwise, turning somersaults, and general roly-poly play. A long flight of steps leading into buildings is an excellent way to stretch leg muscles as well as to emphasize first one foot and then the other for the child who has difficulty with right and left. Low cement walls provide an incentive for the child to lie full length occasionally, letting his body dip one way and then the other. Piling, stamping, throwing leaves in the fall; stamping, running, and rolling big snowballs in the winter; and flying kites in the spring clarify seasonal activities for the child. The regular playground is important for swinging, playing on the seesaw, going down the slide, and pushing the merry-go-round.

Indoors is important for developing more precision skills such as skipping, galloping, leaping, hopping, and sliding. Both environments aid in furthering creative thinking. A child grasping his ankles with his hands and rocking back and forth is the rocking chair; pick the child's legs up at the hips, wheel him easily forward and he is the wheelbarrow; the child sitting on a mat and scooting ahead is the putt, putt boat; pull either the child's feet or hands and he is the wagon. A plank pulled out on the gymnasium floor is used for the child to walk along for balance and posture. Bleachers often found along one side of a gymnasium are used for further practice in balance. Some equipment is easily taken outside for use on sidewalks. Wagons are used in a number of ways. Children take turns pulling, pushing, and riding. Several wagons fastened together become a train. Sleds in winter serve the same purpose that wagons do in warm weather. Tricycles and scooters are fun for the child who prefers to play by himself.

Teaching the Partially Sighted Child To Know Himself Physically

☐ The success of teaching the partially seeing child to know himself physically depends first on the teacher's scientific knowledge of body structure, and second on the teaching techniques employed. Skills are taught from the simple to the complex. One skill is learned before the next more complicated one is attempted. Walking up and down the sidewalk is simpler than picking the feet high and walking on toes or heels. Running up and down the sidewalk is easier than running around a circle of children. Hopping on both feet, then on one foot, comes before hopping first one foot, then the other. Walking and hopping are refined before introducing galloping, and galloping is a prerequisite for skipping. All directions and explanations are given slowly and simply. The teacher is always ready to aid the part of the child's body which is functioning inadequately. A gentle push over when turning a somersault, or holding a child's hand while he is learning to balance are ways in which the child is helped to gain confidence in himself, and to become self-sufficient.

A variety of gross motor activities carefully developed and instigated systematically day by day and week by week through the school years from kindergarten through the elementary grades develops teenagers who are physically competent in such sports as swimming, trampoline, track, and wrestling. A teenager capable of competing with other teenagers in wholesome activities is a much more adequate person in our society than one who has not had the experience of competition.

Must Be a Need to Seek Information

☐ For the partially seeing child to develop a meaningful vocabulary, to interpret and understand ideas printed in books, and to learn the importance of careful planning, much time is spent actually participating in experiences away from the school. An education experience out of the classroom does not just happen. It is never a spur-of-the-moment or a mere "go somewhere" event. An educational program is developed in which there is a need to seek information. The information which the child needs to know is within his level of maturity and pattern of abilities. The study of food is the appropriate time to visit the vegetable garden and the orchard to gather food to prepare in various ways for eating. The study of different kinds of stores is the time to take a trip to the grocery store to buy ingredients to make cookies, and to the roadside market to select a pumpkin for the Halloween party.

Trips outside the classroom

When the need for the trip is established, care and time are taken by the teacher to recall with the children learnings developed during previous trips. This provides the background on which to build the new concepts to be developed. Then the children are given the opportunity to converse and discuss and plan with other members of the group such details as date, time, and means of transportation. During the trip each child is given a chance to examine, to explore, and to ask questions for himself. Observation brings action, and action brings conceptual learning.

Following the trip several discussion periods are held to clinch new concepts, and to integrate other areas of learning. Realistic story problems are thought through and solved by the children. This is the process by which the meaning of numerals takes on personal meaning for each child. The number of different kinds of dogs are added to find out how many dogs there are in the pet store. Children are helped to calculate the number of minutes spent away from the classroom. The partially seeing child needs to depend on mental calculations, and solving realistic problems throughout the educational program helps him to develop the ability to think mathematically.

Developing oral language

☐ This kind of educational program brings with it the development of oral language. It is through the ability to communicate and speak that much learning takes place. Children use oral language to interpret what they learn through experience. They use oral language to gain new information, and they use oral language for self-expression. *A child's success in a reading program depends on the vocabulary he has developed to communicate his ideas orally, and his ability to interpret from past experiences ideas developed by others.* With an adequate vocabulary, the success of a reading program for the partially seeing child depends on the teacher's creativity finding those aids and teaching techniques which bring satisfaction and advancement in the child's day by day learning environment. Aids really fall into two categories: mechanical aids—such as various kinds of magnifiers, low vision lens, racks, moveable top desks, and pointers; and special materials—such as different kinds of paper, highly colored pictures with few details, different kinds of lead and ink pencils, and books with varying size print. Aids do not remain the same for all children. Some may need optical aids, others may be able to use magnifying devices, while still others may be able to use enlarged or ordinary print held close to the eyes. A child's aids should be as simple and as usable as possible. A child soon rejects a complicated rack which takes too much time and effort to adjust before he can begin to work.

Understanding How the Child Uses His Vision

☐ To understand the way the child uses his vision and the adjustment he has made, the teacher carefully observes the child over a long enough period to build criteria for beginning work. The criteria developed must be realistic and need not be static. The danger lies in underestimating what the child is actually able to do, or demanding more than it is possible for him to accomplish or misinterpreting what he is already doing, or staying too long with unsuccessful techniques. Teachers are helped to interpret the way a child uses vision by watching the way in which he looks at and handles materials. Some children need more light and will take whatever they want to play with to a window. Others will be bothered by light and will find a relatively dark corner in which to work. Some will be able to see some detail in small pictures and others will miss detail altogether. This observation time can be and is frequently discouraging. It sometimes takes a good part of a year before the child is making desired progress. This is to be expected and should in no way become a frustrating time for the teacher. With carefully written plans and directed activity, much learning is taking place even though the child is not actually reading or printing.

Developing the Concept That Reading Is A Way of Learning

☐ From the beginning of reading instruction the teacher reads from the encyclopedia, the dictionary, the telephone directory, and science books to develop the concept that reading is a way of learning and is a tool through which information is gained. Many experience stories, expressed orally by the children, are printed with the use of a felt-tip pen and read by rote with the teacher to instill the idea that reading is talk written down. For the child who shows an appropriate pattern of abilities which involves attention span, interest, and an understanding of simple pictures, actual teaching of reading is begun. Beginning reading is done individually with each child. The teacher chooses pictures which have previously held appeal for the child. The pictures are mounted on single sheets of construction paper. As each picture is interpreted the teacher prints short sentences using a controlled pre-primer vocabulary for the pupil to read. The print is exaggerated until the child has read enough to determine the smallest print he can read with ease. Each pupil has his own folder in which all the stories he reads are kept. This gives each child an opportunity to re-read a favorite story, and to do simple work-lessons on the back of each story page while the teacher continues on with individual teaching.

Phonics an important phase of reading program

When a vocabulary of approximately twenty words is well known a program in phonics is begun. This is a most important phase of the reading program since the partially seeing child must depend to such a large extent on word association and word meaning to interpret what he reads. The child is taken step-wise through the phonetic system as it relates to the reading which he is doing. Phonics is a word attack skill, and as such is never isolated from actual stories read. When the child is quite secure in reading, he is invited to choose a large type pre-primer. Because of the vocabulary previously developed the first book read is done easily, and the child feels success from the beginning of the reading program. Always in the first stages of reading, much discussion about the meaning of the pictures and the conversation of story characters is carried on between pupil and teacher. Comprehension is never sacrificed for skills involved in the reading process. This is not to say that skill in reading is unimportant but it is to say that the goal is word perception as a stimulus for meaning. The basic text is not the only source from which the child reads. Calendars, clocks, number books, and *My Weekly Reader* are the different kinds of material introduced in the reading class to develop the concept that reading is done for many different purposes. Due to the difficulty a partially seeing child has in distinguishing words which are very similar in structure, writing and drawing become an essential part of the reading program. Drawing enlarged simple shapes to illustrate detail in objects enhances the child's ability to use vision accurately, and lends interest to reading. Analyzing the difference in such words as want-went, that-this, had-has, was-saw through actual writing develops the child's awareness of the fact that words similar in structure have different meanings. This analysis of words through printing is a technique carried on systematically through the reading program and cannot be over emphasized. (It is not the exactness with which a partially seeing child reads which is necessary, but the interpretation of the material read which is important. To correct every word missed during the reading process is discouraging, but to teach the child to supplant a word which does not alter the meaning is all right.)

Learning Child's Reading Level

☐ As the child progresses in ability to read, a sight vocabulary is used to learn at which level the child is reading. A child must move slowly into more difficult reading material, but must always have much easily read material available for independent reading. To place pictures with captions, short news stories, and directions for making simple gadgets on bulletin boards around the room draws attention to more reading than the child would otherwise do. This technique of teaching the skill of beginning reading is comprehension and is not to be developed by leaps and bounds. The child is, however, not being held back, since the level of thinking is held high, and he is constantly being challenged to draw from his background of experiences and make conclusions through his own reasoning. Individual reading lessons continue, but diminish as the child continues on in the education program. He is placed in group reading situations. Studying and thinking together enchance the reading period and prepare the children for later grades.

As with reading, the concept that writing is a needed tool through which learning takes place is instilled from the beginning of the school program. The teacher helps the child print his name on his own work, messages to take home, and cards for the family on special occasions. This develops the need for learning to write before the skill is introduced. *Again,* before instruction begins, the teacher observes the way the child uses the pencil. A child with a dominant left hand is helped to move the paper to the proper angle and hold the pencil correctly. A large moveable top desk is excellent for writing since the paper can be brought up to the seeing range and both arms can rest easily on the desk. White paper with black lines and dark, soft lead pencils which do not smear are satisfactory materials for introducing the skill of writing. Children who see only a part of a letter or word at one time, or have perceptual difficulty interpreting what they see need specialized help in learning to correctly form letters. Writing models for the child to look at have little value. He is taught to form each letter through description. This involves the teacher's accurate knowledge of manuscript writing. Each straight-lined capital letter is taken in order of complexity and taught as follows:

> "Place your pencil at the top of the paper. Pull it down to the bottom of the black line. Move to the right and make another straight line. Join the two lines in the middle with a short line. This is the capital 'H'."

When the child is making the straight-lined capital letters with some degree of accuracy the lower case curved letters are begun in order of complexity. When the letters are discernible, words pertaining to any *unit of work* being studied are printed. Words beginning with "like" letters and "like" endings are printed. Words which look similar are printed and likenesses and differences compared. Meaningful sentences are printed, put together and called stories. Finally the child is able to print his own stories with help only in spelling words not yet learned. These stories give the child excellent practice in reading *and* integrate printing, reading, and spelling into one complete unit. The child is helped individually to write his own stories, and to form each letter correctly as he writes. There is much for a child to learn in writing. Of course, he must know the process in making all capital and lower case letters. He must know how to space letters in a word and words on a line. As the child continues on, he must learn to judge for himself the space needed for the letters which only take part of a space. With consistent work in *writing material* important to the child, the spelling of many words is learned incidentally, and the child sees a need for concentrated effort in learning to spell.

Teacher-pupil relationship vital

Throughout this paper, the teacher-pupil relationship is stressed in every area of learning. A child with an impairment puts forth much strenuous effort, and cannot be allowed to feel himself unsuccessful. It is placing a child in an environment in which *what he is experiencing has value and makes good sense to him,* and helping him to progress from the effort he puts forth, which lays the vital groundwork for developing the processes through which a child grows into a happy, contributing adult.

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In the June *Outlook*—a salute to Great Britain's Royal National Institute for the Blind on its 100th anniversary and articles on Manifest Anxiety Among Residential School Students and on Work-Sample Tests.

News in Brief

■ Lieut. Col. Edwin Albert Baker, first managing director of the Canadian National Institute for the Blind and one of its founders, died April 7 at his home in Collins Bay, Ontario.

Colonel Baker, 75, was the first president of the World Council for the Welfare of the Blind, a post he held from 1951 until 1964 when he retired.

He was a longtime member of the boards of trustees of the American Foundation for the Blind and the American Foundation for Overseas Blind, and was awarded the Migel Medal of the AFB in 1951. In 1952 he received the Shotwell Memorial Award of the American Association of Workers for the Blind.

Colonel Baker was blinded by a sniper's bullet during World War I. Back in Canada he joined a small group of Toronto businessmen interested in establishing an institute to help the war blinded.

■ Dr. Jacobus tenBroek, a founder and president of the National Federation of the Blind and the International Federation of the Blind, died of cancer on March 27.

Dr. ten Broek, who was 56 years old, was a professor in the political science department at the University of California at Berkeley. He was an authority on welfare problems and constitutional law and a defender of academic freedom. During the 1964 free speech controversy at Berkeley, Dr. ten Broek, who was blinded at the age of 14, sided with the rebellious students in a speech delivered from braille notes.

He was the author of a number of books including *Antislavery Origins of the 14th Amendment,* which is thought to have had an influence on the 1954 Supreme Court school desegregation ruling.

■ David R. Ragan and Edward R. Murray have recently joined the American Foundation for the Blind as regional consultants in the community services division.

Mr. Ragan, who will cover region three which includes Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, and Wisconsin, received a B.S. degree from St. Louis University and an M.S.S.W. from the University of Missouri. Prior to becoming an AFB regional consultant, he had been, since 1960, state-wide coordinator of children's services in the Bureau for the Blind, Missouri State Division of Welfare.

Mr. Murray will cover region five which includes Colorado, Kansas, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, and Wyoming. A graduate of Colorado State College and the University of Denver where he received an M.S.W., Mr. Murray has just retired from the U.S. Army with the rank of lieutenant colonel. His most recent Army assignment was as chief, Army Community Services, at Fitzsimons General Hospital, Denver.

■ Joseph J. Braun has been appointed executive director of The Working Blind in Philadelphia, succeeding Admiral Neale Curtin, USN Ret., who had served in the post for the past nine years. Previously, Mr. Braun served as executive director of the American Medical Center in Denver, as executive director of the National Jewish Hospital, and as director of development for the Wallace Village for Children.

■ An 11-page pamphlet *Suggestions for Functioning as a Sighted-Guide* has been prepared by Francis D. Ryan, a teacher of orientation and mobility at the Braille Institute of America, Los Angeles. It may be obtained at a price of 40 cents by writing to Mr. Ryan at 12017 Albers Street, North Hollywood, California 91607.

■ The American Foundation for the Blind has begun publishing a new bi-monthly newsletter called "Washington Report." The newsletter will cover Congressional activity of significance to blind and visually handicapped persons and the actions of Federal agencies that administer related programs. Irvin P. Schloss, AFB's Washington representative and legislative analyst, is editor of the new publication.

■ The Division of Special Education of the Kansas State Department of Public Instruction has announced that two workshops on the Nemeth Code of Braille Mathematics will be held in Wichita June 10 to 14. The two workshops are the National Braille Association Beginners Course in Nemeth Code, taught by Mrs. Alice M. Mann, chairman of the mathematics committee of the National Braille Association; and a Reinforcement Course in Nemeth Code, taught by Dr. Abraham Nemeth.

For further information and application blanks, write to Mrs. Clara H. Robertson, Director, Programs for the Visually Impaired, Division of Special Education, 120 East Tenth Street, Topeka, Kansas 66612.

■ "The Rights of Age," a 28-minute film written and directed by Irving Jacoby for the Mental Health Film Board Inc., and sponsored by the Office of the Aging of the Pennsylvania Department of Public Welfare, is available for purchase or rent from the International Film Bureau Inc. For further information, contact the International Film Bureau Inc., 332 S. Michigan Avenue, Chicago, Illinois 60604.

Coming Events

May 23-24 Model Reporting Area, Bethesda, Md.

May 23-25 4th Annual Conference of Ultrasonography in Ophthalmology, Philadelphia, Pa.

May 26-31 National Conference on Social Welfare, 95th Annual Forum, San Francisco, Calif.

May 27-29 National Rehabilitation Association, Region II Convention, New York, N. Y.

May 27-29 United Community Funds and Councils of America, Campaign Leaders Conference, Detroit, Mich.

June 3-7 National Rehabilitation Association, Region VIII Convention, Casper, Wyo.

June 12-14 National Rehabilitation Association, Region I Convention, New Haven, Conn.

June 15-16 American Diabetes Association, San Francisco, Calif.

June 23-27 American Association of Instructors of the Blind, Toronto, Ont., Can.

June 26-28 National Association of Hearing and Speech Agencies, National Conference, Bal Harbor, Fla.

July 2-5 National Federation of the Blind, Annual Meeting, Des Moines, Iowa

July 7-10 American Association of Workers for the Blind, Toronto, Ont., Can.

July 21-28 Blinded Veterans Association, Annual Convention, San Francisco, Calif.

July 31-Aug. 5 World Organization for Early Childhood Education, Washington, D. C.

Aug. 18-24 International Council on Social Welfare, International Council of Social Work, Helsinki, Finland

Aug. 26-29 American Sociological Association, Boston, Mass.

Aug.-Sept. 3 American Psychological Association, San Francisco, Calif.

October 6-10 National Industries for the Blind, Annual Meeting, Seattle, Washington

October 8-11 National Association for Retarded Children, Annual Convention, Miami, Fla.

October 19-23 National Rehabilitation Association, Annual Convention, New Orleans, La.

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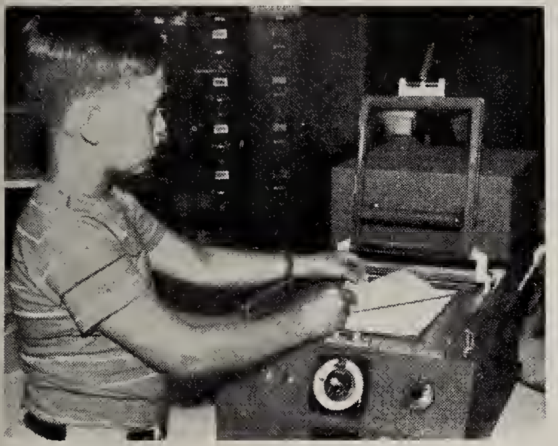

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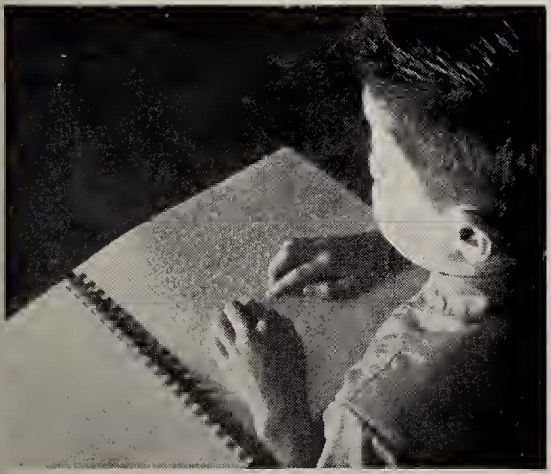

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THE NEW Outlook FOR THE BLIND

June 1968 Volume 62 Number 6

THE ROYAL NATIONAL INSTITUTE FOR THE BLIND 1868—1968

A STUDY OF MANIFEST ANXIETY AMONG BLIND RESIDENTIAL SCHOOL STUDENTS
Richard E. Hardy, Ed.D.

COLLEGE PROFESSORS' REACTIONS TO BLIND STUDENTS
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The Royal National Institute For The Blind
1868 - 1968

MARY ELLEN MULHOLLAND

Miss Mulholland is assistant editor of The New Outlook for the Blind.

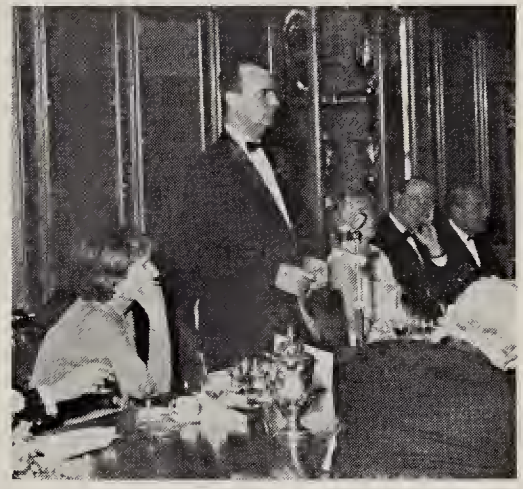
In recent months there has been much discussion about the real or supposed "special relationship" that exists between the United States and Great Britain. Whatever the answer on the political and diplomatic level, there is a sphere, work for the blind, where the relationship has indeed been special and, moreover, happy and fruitful. Since particularly close ties exist between the American Foundation for the Blind and its counterpart organization in Great Britain the Royal National Institute for the Blind, it is fitting that *The New Outlook* salute the Institute on its centennial—which it does with this brief history.

When Daniel Conolly, W.W. Fenn, James Gale, and Dr. Thomas Rhodes Armitage met at the latter's London home at 33 Cambridge Square on October 16, 1868 to discuss the plight of Britain's blind, they could not have been aware that they were founding what was to become the largest voluntary organization for the blind in the world.

Themselves both blind and educated, Dr. Armitage and his friends were acutely conscious that education was the best route to education for the blind, and that one of the bars to education was the myriad of embossed codes in existence at that time. Determined to do what they could to correct the situation, the four men, that October evening, founded the British and Foreign Society for Improving the Embossed Literature of the Blind. Foreshadowng the role the society was later to play, the name was soon changed to the British and Foreign Association for Promoting the Education and Employment of the Blind, and was generally referred to as the British and Foreign Blind Association.

The Association became the National Institute for the Blind in 1914, and the Royal National Institute for the Blind in 1953, at the command of Queen Elizabeth II. Thus does the Institute come to celebrate its centenary in 1968.

To call the early work of "The Blind Ass" (1) (as it was called, affectionately, by the Armitage family) a watershed in the lives of the blind, not only in Great Britain, but all over the world, would not be rash. For the first task the members of the Association set themselves was to examine all of the embossed codes then in existence, to determine which was the best, and to work for the universal adoption of the code chosen. In May 1870, 19 months after the work began, came the unanimous verdict, "that the Braille ought to be adopted as the written character, though the members were equally unanimous that something better might be devised for the printed character" (1). The thought that Moon,* or one of its relatives was superior to braille for the printed character was soon aban-



M. Robert Barnett, executive director of the American Foundation for the Blind, delivers a toast at RNIB's centenary banquet, held in the Hall of the Clothworkers' Company, March 26, 1968. With Mr. Barnett at the head table are, from left to right, Lady Head, Lady Fraser, the Honorable Gavin Astor, and Viscount Head.

Helen Keller chatting with the then Dean of Canterbury, Dr. Hewlett Johnston, at a luncheon the Institute gave in her honor in 1946.

---

* Moon is an embossed code that uses the main outlines of the Roman letter, as far as is compatible with tangibility. The resemblance is real in some letters, not easily traced in others, and in a few does not exist at all (2).

doned, and although many years were to pass, and many bitter battles to be fought, before the use of braille became general, the most important step had been taken.

Once the decision was made, less than six months elapsed before the Association produced its first braille literature—Advent hymns and Cowper's poem, "John Gilpin." At the same time they produced and sold for a shilling apiece a pocket frame for writing braille. All of this work was carried on from 33 Cambridge Square—to the not unjustifiable annoyance of the Armitage cook who often had to contend with braille sheets hanging to dry in the kitchen while she was preparing the family's meals!

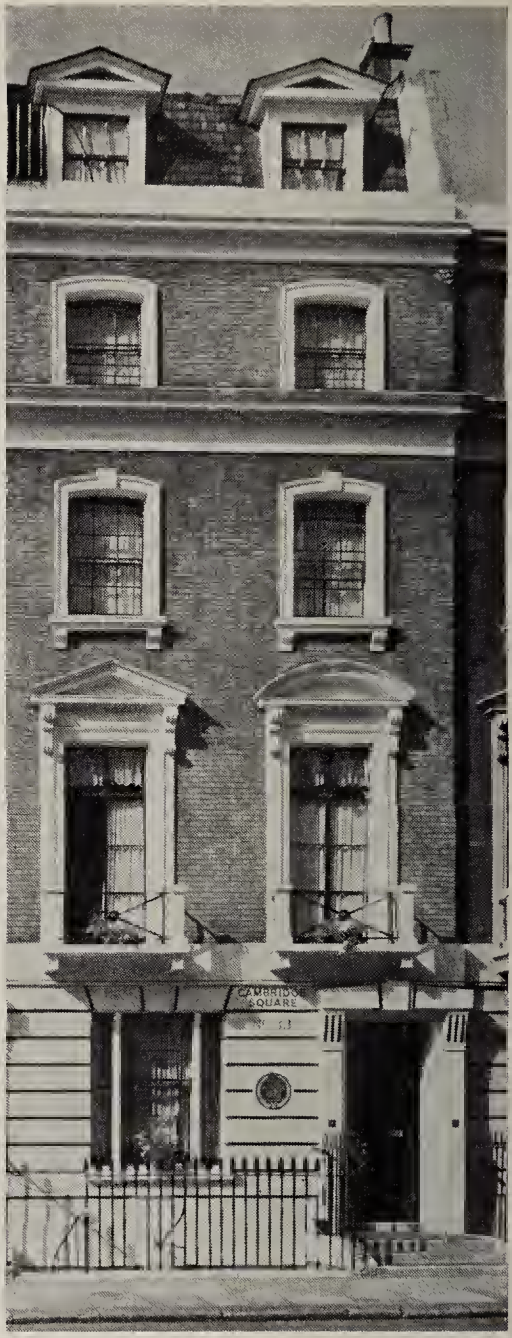
The remaining years of the nineteenth and the early years of the twentieth century saw the Association work to consolidate its position, gradually increasing the use of braille in institutions for the blind, adding to its list of books and periodicals published in braille, and inventing and improving aids and appliances. By 1890, the year of Dr. Armitage's death, more than 800 titles had been transcribed into braille, and a plan to circulate the books to libraries that contributed a guinea a year was in effect. Sometimes the lending went farther afield—in the annual report for 1896, Helen Keller was listed as a borrower.

The Armitage' family's concern for the Association did not end with the doctor's death. 33 Cambridge Square remained its headquarters until his widow's death in 1901. As did her husband, Mrs. Armitage paid all office expenses and salaries, and made regular contributions to the general fund.

If Sir Arthur Pearson, a prominent newspaper and magazine publisher who had become blind at the height of his career, had not entered the scene in 1913, there is an excellent chance that there never would have been an RNIB. When Sir Arthur became president in 1913, the Association was still a small, semi-private venture in blind welfare. Its areas of activity had not broadened and its financial base was, at best, precarious. Before his death in 1921, the National Institute for the Blind (it had been so named in 1914) had already begun to assume the role it plays today.

Not only was it on a firm financial footing for the first time (not the least of Sir Arthur's talents was his genius for fund raising) but it had already assumed many of the responsibilities it carries today. In 1914, it established St. Dunstan's for the care of men blinded in service, which became independent in 1922. Branch offices were established in several other cities. The first of the Sunshine Homes for Blind Babies was in operation, and plans for other schools and residences were underway. The seeds were planted for the Institute's later close cooperation with local agencies when a plan was devised whereby the Institute would return to localities part of the funds raised in national appeals.

Today, led by director general John Colligan, C.B.E., and under the patronage of the Queen and the Queen Mother, RNIB plays many and diverse roles in the lives of the blind in Great Britain. Working closely with government departments, local authorities, and other voluntary agencies, it provides national service to all of Britain's blind. Among these services are the British Talking Book Service, rehabilitation centers, holiday and rest homes, residences for the



33 Cambridge Square

King George VI and Queen Elizabeth in the Institute's physiotherapy clinic during a 1939 visit to commemorate the Institute's 25 years at 224 Great Portland Street.

multihandicapped blind, schools from the nursery to the professional level, administration of home industries, placement and employment services, the invention, manufacture, and sale of a wide variety of aids and appliances, and, of course, the publication of a wide range of reading materials in braille, inkprint, and Moon type.

The Institute has always had a deep interest in finding new and better ways of helping the blind. Two recent developments of which they can be particularly proud are the talking book tape cassette (cartridge) and the solid dot process for printing braille. A detailed description of the tape cassette appeared in the April 1968 *Outlook*. The solid dot process of printing braille was introduced in 1952 at the Institute's Louis Braille Centenary Exhibition. The process, whereby braille dots are no longer impressed but applied in plastic, attracted considerable attention, and experiments with it were continued. In 1955 a solid dot braille machine was installed in the Institute. Modifications and improvements have been made continually since then and today a number of Institute publications are produced by this process.

RNIB's close relationship with work for the blind in the United States can be traced to the early days of the Association. Dr. Armitage visited this country in 1884 and he corresponded regularly with American leaders in the field. Not that the relationship was always smooth. In 1882, Perkins initiated a campaign to raise funds for the printing of books in an embossed type called Boston line letter.* A letter from the Association expressing dismay evoked only a brief reply saying that the letter would be "filed for future reference."

With the founding of the Institute's counterpart organization in the United States, the American Foundation for the Blind, in 1921, the relationship was quickened and cemented. A complete accounting of the collaboration between the two organizations would include every facet of work for the blind. One small example—when World War II cut off the production of phonograph needles in Britain, the Foundation came through with a gift of 500,000. Because they have had or will have an effect far beyond the two nations' borders, two areas of cooperation should be mentioned here, the creation of a world council and research.

The first step toward forming an international organization for the welfare of the blind was taken in 1931 when AFB organized and sponsored a World Council on Work for the Blind, which was held in New York. W. McG. Eager, then secretary general, and Lord Kenswood, a board member, represented RNIB. While it was an abortive attempt, the already existing bonds between RNIB, AFB, and the American Braille Press (renamed the American Foundation for Overseas Blind in 1946), were strengthened.

In 1947, Dr. Robert Irwin, AFB's executive director at the time, went to England with the purpose of reviving the idea. During his visit, plans were made for an International Conference of Workers for the Blind, to be sponsored by RNIB and AFOB, with the participation of the United Nations and UNESCO.

Lady Churchill looks at returns from RNIB's annual BBC Christmas appeal—the only public appeal for funds the Institute makes.

Prince Philip watches braille being printed by the solid dot process at RNIB's Louis Braille Centenary Exhibition in 1952.

Princess Margaret, president of the Sunshine Homes for Blind Babies, on a visit to one of the homes, the Sunshine Home for Mentally Retarded Children at East Grinstead.

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* A variation of braille originated by J. W. Smith of Perkins in which the braille cell was retained but the letters planned according to their frequency of occurrence. Also called modified braille (3).

The conference met at Oxford, England in 1949 and set up an International Committee for the Welfare of the Blind with Mr. Eager as president. This interim committee drafted a constitution and, in 1951, 20 years after the birth of the idea, the first general assembly of the World Council for the Welfare of the Blind was held.

RNIB and AFB have long been actively involved in each other's research projects on an informal basis. In 1962, the relationship was put on a more formal basis with the establishment of the International Research Information Service (IRIS). IRIS was established in order to report the existence of and continuously gather information about ongoing research and to disseminate this information to the research community and to people engaged in work for the blind. While the major responsibility rests in New York with AFB, RNIB has assumed the responsibility for updating and disseminating information about the availability aids and appliances throughout the world.

Queen Elizabeth II, with RNIB's director general, John Colligan, CBE, examines aids and appliances during a visit to the Institute's headquarters.

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Copyright Legislation & Recording for the Blind

This spring there has been considerable interest in the effect of S. 597 on volunteer recording of material for blind persons. S. 597, which was introduced by Senator John L. McClellan (D-Ark.), would revise the copyright laws.

For the first time, S. 597 would incorporate in statute fair use provisions not in present law but referred to as the doctrine of fair use based on court decisions. Staff members of the Subcommittee on Patents, Trademarks, and Copyrights of the Senate Committee on the Judiciary, after consultation with committee counsel, believe that S. 597 would not alter existing practice in volunteer recording for blind persons. In fact, the bill would seem to make it possible for small volunteer groups recording for a small audience of blind people to proceed without obtaining copyright clearance. However, as a matter of courtesy to the copyright owner, it would be highly desirable for all groups which record reading matter for the use of blind persons to obtain permission from the copyright owner.

S. 597 is not expected to be passed by the Congress during this session owing to controversy over other provisions. However, it is expected that a similar bill will be acted upon early in the 91st Congress. As a result of consultation with committee staff we plan to submit wording to be incorporated in the committee report on the bill to assure that reading matter for the use of blind persons can be recorded as it is done at present.

—Irvin P. Schloss

A Study of Manifest Anxiety Among Blind Residential School Students

RICHARD E. HARDY, Ed.D.

Dr. Hardy is chief psychologist and supervisor of training for the South Carolina State Department of Vocational Rehabilition.

Blindness imposes certain limitations upon what might be termed normal human functioning. Long range effects of such limitations have long been topics of concern. The person with a serious visual defect has unique experiences which often seem to result in anxious feelings, and these feelings, in turn, may substantially affect adjustment to life situations.

Nationwide support for rehabilitation programs indicate that Americans are accepting the responsibility for assuring that mentally, physically, emotionally, and culturally handicapped persons are allowed opportunities for the full development of their capabilities. As a corollary, psychologists feel the responsibility to learn more about their clients in order to help them toward the fullest development of their potentialities. In order to do this, of course, they must depend to some extent upon valid and reliable tests and measurements. Unfortunately, few tests and measurements have been developed specifically for the blind, and no measure has been constructed of anxiety related to blindness.

Research Material On Anxiety Among Blind Persons Almost Nonexistent

☐ Research material on anxiety among blind persons is almost nonexistent. Bauman (1) and co-workers claim the first scientific writing on adjustment problems of the blind as recently as 1954. In 1957, Dean (4) reported on the evaluation of various tests, including Taylor's Manifest Anxiety Scale (MAS) for use with the blind. He concluded that the blind seemed to differ from both normal and clinical groups on the MAS, and they tend to defend themselves by response distortion. He was unable to differentiate groups of blind persons according to visual acuity, duration of handicap, or adjustment.

Zarlock (10) found that scores of blind persons on a social adjustment scale were related to high ego strength, low manifest anxiety, and a positive attitude toward blindness. His study concerned magical thinking and associated psychological reactions to total blindness.

The most comprehensive narrative coverage of anxiety as it relates to blindness is offered by Bauman and Yoder (2) in a recent publication which includes an up-dating of Bauman's original adjustment to blindness study. The authors have discussed various definitions of anxiety as well as certain research findings and related them to blindness.

The purpose of the research described in this article was the construction and evaluation of an experimental instrument (a scale of manifest anxiety) designed especially for the blind (the partially sighted and the totally blind) and the study of anxiety levels in relation to a blind person's age, amount of vision,* sex, and verbal intelligence. It was believed that a scale of manifest anxiety specifically constructed for blind persons would be more meaningful for them than the commonly used scales. Taylor's Manifest Anxiety Scale (8) was chosen as an example of a commonly used scale and was employed as a general anxiety measure because it is one of the best known. In addition, the MAS was devised to evaluate drive in learning situations and to measure an inner force which makes people competitive. This force may bear a possible special relationship to the effects of blindness in that blind persons must constantly prove themselves through competition with the sighted (2).

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*Subjects were divided into three groups: (1) the totally blind, (2) those with light perception and projection, and (3) those with relatively useful vision.

What is anxiety?

In a study of the validity of Taylor's Manifest Anxiety Scale, Kendall (7) described anxiety as the extent to which an individual

> (a) gave exaggerated and inappropriate reactions on slight provocation, (b) gave general indications of fatigue not attributable to his physical condition, (c) displayed difficulties in elimination not explainable by his physical condition, (d) appeared to be easily upset, (e) showed indications of general restlessness, (f) slept poorly, (g) displayed symptoms of nausea or vomiting not attributable to his physical condition, (h) displayed difficulty in concentration or thinking, and (i) appeared to be generally tremulous.

The Sample: Criteria of Selection

☐ A sample was chosen of all blind* (the partially sighted and the totally blind) students from the residential school population of the Maryland School for the Blind and the Overbrook School for the Blind in Pennsylvania. The sample included 122 males and females, the age levels ranging from 13 to 22. The study sample consisted of students in regular classes at the residential schools who had no recorded physical or mental handicaps in addition to blindness. All subjects had been blind for at least three years.

Construction of an Anxiety Scale for the Blind

☐ Before writing prospective items for the Anxiety Scale for the Blind (ASB), the following criteria for item selection were established: (1) each item should be as specific in content as possible; (2) each item should be in language easily understood by blind high school students; (3) each item should relate to anxiety as it is experienced by blind persons: and (4) each item response should contribute to the evaluation of manifest anxiety. Several steps described by Hardy (5) were taken in the refinement of items. A final step involved the judging of individual items by five clinical experts. Items were judged as good or poor by the five psychologists who were knowledgeable about the problems of blindness. A total of 78 items judged as indicative of manifest anxiety formed the Anxiety Scale for the Blind. A pamphlet explaining and including this scale is available from the Publications Division, American Foundation for the Blind, 15 West 16th Street, New York, N.Y. 10011 for $1.00. Teachers have an opportunity to observe student behavior daily, and their responses to items indicative of manifest anxiety should provide a satisfactory measure of student anxiety external to that measured by other instruments.

Thirty-nine items and true or false answers intended to measure manifest anxiety of students were written, refined, and evaluated by a second group of five independent clinical experts. These judges were asked to evaluate items as excellent, good, fair, poor, or no measure of manifest anxiety. After refinement and evaluation, 23 items were chosen to form a scale for teachers to use in rating the manifest anxiety of individual students (5).

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* Blindness is defined as visual acuity in the better eye with best correction which does not exceed 20/200 or a defect in the visual field so that the widest diameter of vision subtends an angle no greater than 20 degrees (6).

Teachers rated only those students whom they taught. Two teachers rated each student and after three weeks each student was re-rated.

Administration of the ASB and the MAS

☐ The ASB and the MAS were twice administered orally. The first administration was completed in both schools in November 1965 and the second administration was finished the third week in December of the same year.

Rolls of common theater tickets numbered at each end were given to all students. These had been previously rolled to include the exact number of questions for each instrument. In order to assure that each student was answering the correct question, holes were punched in every tenth ticket. True response tickets were placed on the right of the desk and false response tickets were placed on the left.

Students in both schools took the ASB in approximately 50 minute and the MAS in about 40 minutes. Twenty minutes were allowed between tests.

Statistical Procedure

☐ Since the research purposes required investigating the linear relationship between the anxiety scales and also the linear relationship between teacher ratings of students and scores on anxiety tests, the product-moment coefficient of correlation was chosen as a measure of the degree of resemblance between variates in question. A t-test was appropriate for evaluating the significance of observed correlations. Fisher's z statistic (3) was used in normalizing correlation coefficients so that comparisons among coefficients could be made. An F statistic was selected to test the significance of differences between any two given correlations.

The split-half method was chosen to evaluate reliability of both anxiety scales, and stability over time was evaluated by a retest reliability coefficient. Average performance on both split-half scores and retest scores were compared through the use of the studentized range statistic (9).

Teacher rating reliability was tested by correlating the two ratings of each teacher and by correlating the first rating of both teachers and the second rating of both teachers. The first measure indicates the re-rating consistency of teachers, and the second indicates the inter-rater variability. The F-ratio test was used to evaluate the likelihood that teacher ratings between schools differed with regard to variability.

Most of the various statistical techniques were applied by progamming the data into a 1620 computer.

Results

☐ The 66 students from the Overbrook School for the Blind and the 56 from the Maryland School for the Blind were combined to give one large sample rather than two smaller samples. Except in the area of teacher ratings, the two schools did prove to give homogeneous measurements in terms of odd-half splits, re-test scores, and verbal intelligence. In the given sample of 122 students, the two anxiety tests correlated significantly for a correlation coefficient of 0.7416. The correlation coefficient between the two anxiety tests was also computed for five subgroupings of the data (see Table 1).

A complex pattern of significance emerged when the correlations between

TABLE 1: Correlation Coefficient Between ASB and Taylor Test Scores

Grouping	*Coefficient*
Males	0.6915
Females	0.7822
Total blindness	0.6062
Light perception and projection	0.7949
Relatively useful vision	0.7834

anxiety test scores and the teacher ratings were examined. The combined sample of 122 students showed correlation measures of 0.2834 between the ASB score and Teacher A's rating and 0.2891 between the ASB score and Teacher B's rating. A correlation estimate of 0.1942 was found between the Taylor score and Teacher A's rating and a correlation of 0.2253 was indicated between the Taylor score and Teacher B's rating. All were statistically significant at the .05 level of confidence.

The female and totally blind students showed a significant relationship between the test scores and the teacher ratings. Among students with relatively useful vision, there was a significant correlation between the test scores and Teacher B's rating but not between the test scores and Teacher A's rating. Means and standard deviations of all anxiety scales are given in Table 2.

TABLE 2: Test Score Means and Standard Deviations

Variable	*All students*	*Male*	*Female*	*Total blindness*	*Light perception and projection*	*Relativity useful vision*
ASB	18.11	17.51	18.65	16.74	20.17	17.84
	(9.60)	(9.68)	(9.58)	(9.23)	(8.70)	(9.88)
MAS	15.98	15.10	16.75	13.35	17.55	16.56
	(8.01)	(7.58)	(8.35)	(6.86)	(8.48)	(8.14)
Teacher A	4.32	3.65	4.91	4.13	3.79	4.66
	(4.11)	(3.90)	(4.22)	(4.37)	(4.24)	(3.94)
Teacher B	4.21	3.79	4.58	4.16	3.24	4.69
	(3.90)	(3.77)	(3.99)	(3.59)	(3.02)	(4.35)

On the other hand, the male students and the light perception and projection group indicated no significant correlation between the test scores and the two teacher ratings.

The two halves of the ASB gave a correlation coefficient of 0.789 while the two halves of the Taylor test showed 0.717 as their measure of agreement (see Table 3). The studentized range statistic gave no indication that means of half scores differed; therefore, there was no reason to believe that either the ASB or the Taylor was internally biased. The retest and a studentized range procedures indicated no significant score difference over time.

☐ Table 4 contains the correlation coefficient obtained between age and the four anxiety indicators (ASB, MAS, Teacher A rating and Teacher B rating) for all breakdowns into subgroups of the data. As can be seen, age correlates significantly with the ASB and the Taylor test results indicating coefficients of 0.1907 and 0.2532, respectively, for all students. This meant the older the stu-

TABLE 3: Intra- and Inter-Test Score Correlation Coefficients

Sample variables	*Coefficient of Correlation*
ASB/Taylor	0.742
ASB/Teacher A	0.283
Taylor/Teacher A	0.194
ASB/Teacher B	0.289
Taylor/Teacher B	0.225
Two halves: ASB	0.789
Two halves: Taylor	0.717
ASB test/re-test	0.746
Taylor test/re-test	0.811
Two ratings by Teacher A	0.917
Two ratings by Teacher B	0.929
First ratings of both teachers	0.826
Second ratings of both teachers	0.844

TABLE 4: Relationship Between Chronological Age in Years and Anxiety Test Scores

Sample	*N*	*Anxiety Scale*	*Correlation coefficient*
All students	122	ASB	0.1907*
		Taylor	0.2532*
		Teacher A rating	—0.1110
		Teacher B rating	—0.1478
Male students	57	ASB	0.1078
		Taylor	0.1080
		Teacher A rating	—0.2651*
		Teacher B rating	—0.2586*
Female students	65	ASB	0.2859*
		Taylor	0.4077*
		Teacher A rating	0.0442
		Teacher B rating	—0.0348
Totally blind	31	ASB	—0.0547
		Taylor	0.1296
		Teacher A rating	—0.0924
		Teacher B rating	—0.2983
Light perception and projection	29	ASB	0.4943*
		Taylor	0.3175*
		Teacher A rating	—0.0165
		Teacher B rating	—0.0082
Relatively useful vision	62	ASB	0.1702
		Taylor	0.2272*
		Teacher A rating	—0.1783
		Teacher B rating	—0.1420

* Significant at the .05 level of confidence.

dent, the more likely he was to have a high ASB or Taylor score. Age for the overall sample was not significantly related to the teacher ratings.

By breaking the data down according to visual acuity groups, it was shown that the anxiety level of the totally blind student did not vary with his age. Students in the light perception and projection group did show a significant tendency to have higher ASB and Taylor test scores as their age increased. Students with relatively useful vision indicated a positive correlation between age and the Taylor test but not between age and the ASB scale (see Table 5).

TABLE 5: Relationship Between Visual Acuity and Anxiety Test Scores

Sample	*N*	*Anxiety Scale*	*Correlation coefficient**
		ASB	0.0261
		Taylor	0.1444
All students	122	Teacher A rating	0.0650
		Teacher B rating	0.0794
		ASB	—0.0232
		Taylor	0.1943
Male students	57	Teacher A rating	0.1206
		Teacher B rating	0.0297
		ASB	0.0683
		Taylor	0.0945
Female students	65	Teacher A rating	0.0034
		Teacher B rating	0.1161

* Not significant at .05 level of confidence.

In examing the sex differences in anxiety scale scores (see Table 6), it was found that females in the light perception and projection group had higher Taylor scale scores than did males in the same group. Sex differences were not candited in any other breakdowns of the data.

TABLE 6: Relationship Between Sex and Anxiety Test Scores

Sample	*N*	*Auxiety Scale*	*Correlation Coefficient*
		ASB	0.0593
		Taylor	0.1030
All students	122	Teacher A rating	0.1535
		Teacher B rating	0.1022
		ASB	—0.0964
		Taylor	—0.0092
Totally blind	31	Teacher A rating	0.2440
		Teacher B rating	0.0870
		ASB	0.1736
Light perception and projection		Taylor	0.3588*
	29	Teacher A rating	0.1489
		Teacher B rating	0.0635
		ASB	0.0637
Relatively useful vision		Taylor	—0.0065
	62	Teacher A rating	0.1172
		Teacher B rating	0.1432

* Significant at .05 level of confidence.

According to the results of the correlation analysis, verbal intelligence was significantly inversely related to the ASB and Taylor scores (see Table 7). Female students had an especially high negative correlation between verbal intelligence and all anxiety scores. For male students, verbal intelligence seemed to affect the ASB score only. Verbal intelligence was not significantly related to the anxiety scale scores of the totally blind students, but increased verbal intelligence did vary with the lower ASB and Taylor scores of the light perception and projection group and the group with relatively useful vision.

TABLE 7: Relationship Between Verbal Intelligence (Wechsler-Bellevue) and Anxiety Test Scores

Sample	*N*	*Anxiety Scale*	*Correlation coefficient*
All students	122	ASB	—0.3326*
		Taylor	—0.3126*
		Teacher A rating	—0.1547
		Teacher B rating	—0.1198
Male students	57	ASB	—0.2312*
		Taylor	—0.1422
		Teacher A rating	0.0377
		Teacher B rating	0.0666
Female students	65	ASB	—0.4029*
		Taylor	—0.4070*
		Teacher A rating	—0.2441*
		Teacher B rating	—0.2219*
Totally blind	31	ASB	—0.0953
		Taylor	—0.0211
		Teacher A rating	—0.1584
		Teacher B rating	—0.0676
Light perception and projection	29	ASB	—0.5713*
		Taylor	—0.5344*
		Teacher A rating	—0.2301
		Teacher B rating	—0.0655
Relatively useful vision	62	ASB	—0.3644*
		Taylor	—0.2906*
		Teacher A rating	—0.0831
		Teacher B rating	—0.1381

* Significant at .05 level of confidence

Conclusions and discussion

It was concluded that the MAS and the ASB measure somewhat the same properties, and that one instrument seems as useful as the other with blind residential high school students who have no mental or physical handicap in addition to blindness and who have been blind for at least three years.

Results indicate a significant inverse relationship between verbal intelligence and anxiety scores; however, there seems to be no significant relationship between sex category and anxiety scores or visual acuity and anxiety scores. Although visual acuity was found to be a non-significant variable, the light perception and projection group scored somewhat consistently higher than either the group of the totally blind or the group with relatively useful vision.

It has been shown that manifest anxiety tends to increase with age among blind residential high school students. Researchers may want to consider controlling for the age variable in future studies of this group. Counselors may find it reasonable to expect that older students in residential schools wll require more counseling than younger students.

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Social Supermarkets

In Gothenburg, Sweden, Director of Social Affairs Arne Magnusson uprooted his entire organization, posted staffers to new offices all over town and hired an expert on marketing statistics to help make social aid "truly productive." In Malmo, Sweden, Social Director Bengt Hedlen has introduced data-processing of case information from five new district centers, pushes welfare much the way an agent sells life-insurance ("Tomorrow you can become a social case"). In Oslo, Norway, social services are being distributed through neighborhood centers which offer a wide assortment of welfare commodities plus efficient, all-round service.

Scandinavia welfare running wild? No, Scandinavian welfare trying to keep up with its own image. Employing marketing experts, data-machines, and salesmanship is not for show. It is part of an effort to inject new purpose and meaning into creaking social-care systems—to replace unwieldy bureaucracy with genuine service, piecemeal aids with comprehensive solutions, lingering prejudice with information and new understanding.

Under the new systems the client makes an appointment with the local welfare center. There are no queues or counters; instead, a comfortable lounge to wait in briefly, then consultation in absolute privacy, perhaps over a cup of coffee. And whatever the problem, the aid-seeking citizen has to put it before only one social worker, and probably will never need to see anybody else about it even if the case involves several kinds of aid. The social worker assigned to the case remains the applicant's personal link to social care. It is his job to combine and coordinate all possible measures to find the best solution.

Replacing Care With Service

☐ In Malmo, Hedlen defines the new philosophy as replacing care with service. "It must never be humiliating to turn to the social office," he says. "Social aid is not a dole, but the citizen's dear right. He shall know that the day he needs aid he will get it without demands of gratitude. He has paid for it in advance, through taxes."

As long as eight years ago, Gothenburg's Magnusson warned that split-up administration not only hampered meaningful social care but was wasteful. Later, statistics in Malmo showed that social-care personnel had swelled by 250 percent over 20 years, yet all departments complained of manpower shortage—and the work was not done as efficently as it might be. Commissions were put to work, in both cities, and from their recommendations—adopted almost unanimously by the city councils—sprang the social supermarket.

In Norway, the road was paved by the Social Care Act of 1964, which enjoined all towns and municipalities to establish social welfare boards to direct all relevant activities. In 1965, Malmo opened its first social supermarket; in 1966, Oslo followed suit, and at the beginning of 1967 Gothenburg was in business.

Reforms instigated at local level

So far the reforms have been instigated at local levels, often more in spite of than in consequence of national legislation. But the Swedish Government has begun to move. It has merged its health and welfare agencies, and Minister of Family Matters Camilla Odhnoff recently announced that a commission will consider overhauling the existing social-aid legislation. Finland's government is also merging its social and health agencies, and Prime Minister Rafael Paasio recently pledged action to coordinate social aid legislation, too.

Denmark thus far does not have anything like the social supermarket system. But Government Commission is reviewing all social legislation, and Commission Chairman H. C. Seierup predicts that the result may be a "new deal" in social aid "much more effective than anything the Swedes are now doing." Whatever emerges will follow the social supermarket line, with its basic tenets: "Prevention (of social need), rehabilitation, security, and welfare."

—*Scandinavian Times*

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A Study of the Clawson Worksample Tests for Measuring the Manual Dexterity of the Blind

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One area of specialization which is becoming an important function of rehabilitation workshops is prevocational evaluation. This is especially true of workshops serving the blind. The prevocational counselor is faced with the task of evaluating clients' skills and making predictions as to the type of work for which they are best suited. Since manual skill occupations are of special importance, it is desirable that the traits needed to perform these jobs be evaluated early in the prevocational program. The problem is: how does one evaluate the manual skill of the blind?

How Does One Evaluate the Manual Skill of the Blind?

☐ There are several manual dexterity tests on the market. However, few of them have norms for the blind. Mary Bauman (1958) has normed for the blind such tests as the Pennsylvania Bi-manual Worksample and the Minnesota Rate of Manipulation. Curtis (1950) and Maxfield and Perry (1960) developed norms for the blind on the Purdue Pegboard. But how well do these tests evaluate manual skills and predict success on the job? The reliability and validity of these tests are not very high. Their insufficiency is attested by the fact that few prevocational evaluation units rely very heavily on them. Curtis, in his study, noted two principle difficulties in testing the blind: (1) limited vocational placements; and (2) limitations of testing instruments.

The trend in evaluating manual skills in prevocational workshops is to use worksamples or to simulate jobs from industry—using the actual tools, parts, and machines that the client would be using if he were employed in industry.

Bringing objectivity to the workshop approach

In order to bring more objectivity to the worksample approach, a project was begun in cooperation with the Murray B. Allen Center for the Blind in Salt Lake City, Utah. Many industries were visited to find jobs that the blind could perform and that could be standardized. Five worksamples were chosen for this study. These five worksamples, the Envelope, Vial, Catheter, Valve, and Washer Worksamples, require skills varying from gross hand movements to fine finger dexterity and sensitivity. They are called Clawson Worksample Tests (CWT).

The procedures for assembling the worksample were written down as administrative instructions for the tests. The CWT was administered to legally blind clients at the Murray B. Allen Center for the Blind and several other participating agencies throughout the United States. (See Table 1.) The Minnesota Rate of Manipulation (MRM) and the Purdue Pegboard (PPB) were administered to some subjects who were tested by the CWT. Bauman's (1958) instructions were used for the MRM and Curtis' (1950) procedures for the blind were used for the PPB. The number of subjects participating in the tests varied as not all agencies had all of the tests. (See Table 2).

One feature of the CWT is longer testing time. The Envelope Worksample is the shortest, requiring an average of about twenty minutes each for assembly

Number of Subjects Participating from Various Agencies in the Clawson Worksample Tests (CWT)

TABLE 1

Agency	*Number of Subjects*
Murray B. Allen Center for the Blind Salt Lake City, Utah	52
Hawaii Dept. of Social Services Honolulu, Hawaii	24
Regional Rehabilitation Center Minneapolis, Minnesota	18
North Carolina State Commission for Blind Raleigh, North Carolina	17
El Paso County Association for the Blind El Paso, Texas	16
Northwestern Rehabilitation Center Seattle, Washington	4

Number of Subjects Participating on the Minnesota Rate of Manipulation, Purdue Pegboard, and the Clawson Worksample Tests

TABLE 2

Minnesota Rate of Manipulation (MRM)		
	Displacing	47
	Turning	47
Purdue Pegboard (PPB)		
	Right Hand	43
	Left Hand	43
	Both Hands	43
	Assembly	43
Envelope Worksample		
	Assembly Test	109
	Disassembly Test	107
Vial Worksample		
	Assembly Test	64
	Disassembly Test	63
Catheter Worksample		
	Needle Test	85
	Sleeve Test	63
	Final Assembly	64
	Disassembly	61
Valve Worksample		
	Assembly Test	47
	Disassembly Test	47
Washer Worksample		
	Assembly Test	50
	Disassembly Test	50

and disassembly. The rest of the tests require an average of fifty to sixty minutes to complete. Another feature of these tests is their face validity. Two of the worksamples, the Valve and Catheter Worksamples, are actual jobs existing in industry. The other three worksamples simulate existing jobs. It is felt these are necessary features in order to establish adequate validity for manual dexterity tests.

Test-retest procedures used to establish reliability

Test-retest procedures were used to establish the reliability of the tests. The delay between tests varied from two weeks to two months. This delay helped minimize the practice effect. A correlation between the two scores was run to obtain the reliability coefficients.

Establishing Validity

□ The validity was established by having supervisors of clients who obtained jobs, rate these clients' skills in comparison with other workers. The length of time the clients had been working varied from a month to several years. (See tables 5 and 6 for the number of subjects involved in reliability and validity data.)

A computer was used to obtain the means, standard deviations, reliability and validity coefficients, and correlations between all tests of the CWT, MRM, and PPB. A percentile norm table was computed from the frequency count of each test. A profile sheet was devised for examiners to record clients' scores. In order to find which tests of the CWT were the best predictors, the Wherry-Doolittle method of test selection was applied to the data.

This is a preliminary study to determine how useful these tests may be in evaluating manual skills of the blind. It is the author's intention to continue gathering data and build more adequate norms for the tests. Therefore, rather than using non-parametric statistics because of the small N's available now, statistics were used in this study which will also be applicable in future studies.

A percentile norm table for all tests involved in the study was constructed. (See Table 3.) The results of the MRM show somewhat more variability than Bauman's findings (1958), especially with the displacing test. An accurate comparison is not possible, however, because Bauman divided her norms according to sex, age, and degree of vision. The norms in this study are presented as a total group until larger N's are available.

The computer printed an intercorrelation matrix between all tests used in the study. (See Table 4.) The mean correlation between the CWT and the MRM is .56, while the mean correlation between the CWT and the PPB is somewhat lower at .47. It is also noted from Table 7 that the validity coefficients of the PPB are considerably lower than for either the CWT or the MRM. The mean validity coefficient of the CWT is .61.

The test-retest reliability coefficients are generally quite high, with a few exceptions. (See Table 5.) Most of them are in the high .90's. The mean reliability coefficient for the CWT is .90.

Wherry-Doolittle method applied to CWT

The Wherry-Doolittle method of test selection was applied to the twelve tests of the CWT in order to identify those tests which contributed the most to predicting client success on the job. The resulting coefficients of multiple correlation are shown in Table 7. The multiple regression coefficient increased from 169 of the Catheter Disassembly to .86 with the addition of the Washer Assembly. It then declined with the addition of the Envelope Disassembly. The Washer Assembly added very little to the predictive efficiency of the battery and could easily be eliminated, leaving the Catheter Disassembly, Valve Disassembly, and Sleeve Assembly as the main battery of tests. However, it is not possible to use these tests alone. For example, in order to have the Catheter Disassembly Test, the first three assembly tests of the worksample must be done.

TABLE 3

Norms for the Clawson Worksample Tests (CWT), Minnesota Rate of Manipulation (MRM), and the Purdue Pegboard (PPB)

	CWT												MRM		PPB				
	ENVLP.		VIALS		CATHETERS				VALVES		WASHERS								
%ile	As.	Dis.	As.	Dis.	Ndl.	Slv.	As.	Dis.	As.	Dis.	As.	Dis.	Disp.	Turn.	Rt.	Lft.	Both	As.	%ile
99	6	6	10	11	9	20	23	13	22	8	29	19	136	126	57	53	43	159	99
95	9	7	29	27	11	27	30	17	29	12	30	23	143	138	48	49	40	127	95
90	10	8	30	29	—	28	36	20	31	13	33	25	149	144	47	47	38	121	90
85	11	9	36	36	13	30	38	21	33	14	34	27	158	149	46	45	36	116	85
80	12	10	39	39	14	33	44	24	35	15	36	—	160	152	43	43	34	105	80
75	13	—	40	41	15	34	51	29	36	16	37	28	164	153	42	42	33	99	75
70	14	11	43	43	17	38	53	32	37	17	40	32	165	154	41	40	32	98	70
65	15	12	44	46	18	39	56	33	38	18	41	33	166	156	39	39	31	95	65
60	—	—	48	48	21	44	58	36	40	20	42	34	168	159	38	38	30	92	60
55	16	13	49	49	24	50	62	41	—	21	46	35	170	160	37	36	29	91	55
50	18	—	50	56	26	55	68	43	43	24	48	37	174	164	36	34	28	87	50
45	19	14	51	57	28	58	69	46	46	25	54	42	178	175	35	33	27	84	45
40	20	15	52	59	29	60	71	50	50	27	56	46	185	176	34	31	25	82	40
35	22	16	53	66	30	68	75	54	52	28	57	51	186	183	32	30	24	79	35
30	23	17	54	71	32	72	77	61	54	29	63	—	192	190	30	29	23	75	30
25	27	19	57	77	36	75	91	68	67	30	66	52	201	194	—	27	21	70	25
20	29	20	63	79	42	81	94	71	70	33	71	53	216	201	29	26	20	66	20
15	33	35	65	95	45	85	107	75	74	36	74	57	226	212	27	24	18	61	15
10	39	39	69	105	55	115	114	93	100	47	93	58	238	230	26	21	16	52	10
5	45	44	80	120	68	128	137	114	133	68	104	64	251	246	19	12	13	22	5
1	73	83	105	154	105	144	163	150	154	80	139	71	323	298	17	7	10	19	1
N	109	107	64	63	85	63	64	61	47	47	50	50	57	57	43	43	43	43	N
M	22.1	17.8	50.5	62.2	30.4	66.9	83.0	51.0	60.2	38.1	55.3	51.2	190.0	176.7	36.8	32.9	26.2	85.9	M
SD	14.6	15.9	16.3	32.2	22.0	43.0	54.3	31.1	35.4	25.0	24.2	30.5	51.9	38.6	7.4	7.9	6.9	21.6	SD
SE	12.0	13.2	13.0	25.4	17.8	32.7	46.1	22.4	28.0	18.8	19.4	24.1	40.0	30.5	6.8	7.6	6.1	18.4	SE

TABLE 4

Correlation Matrix for the Minnesota Rate of Manipulation (MRM), Purdue Pegboard (PPB), and the Clawson Worksample Tests (CWT)

	MRM		*PPB*				*CWT*										
	Displacing	Turning	Right Hand	Left Hand	Both Hands	Assembly	Envlp. As.	Envlp. Dis.	Vial As.	Vial Dis.	Catheter Ndls.	Catheter Slv.	Catheter As.	Catheter Dis.	Valve As.	Valve Dis.	Washer As.
MRM																	
Turn.	.76																
PPB																	
Right Hand	.63	.45															
Left Hand	.47	.37	.64														
Both Hands	.66	.47	.83	.81													
Assembly	.60	.57	.83	.67	.84												
CWT																	
Envlp. As.	.69	.63	.54	.47	.65	.73											
Envlp. Dis.	.64	.50	.52	.43	.67	.65	.83										
Vial As.	.72	.75	.51	.52	.64	.67	.82	.76									
Vial Dis.	.69	.53	.57	.43	.66	.59	.58	.65	.69								
Catheter Ndls.	.65	.55	.66	.49	.67	.53	.37	.56	.66	.76							
Catheter Slv.	.45	.34	.59	.13	.43	.53	.31	.39	.47	.50	.46						
Catheter As.	.45	.61	.29	.40	.45	.45	.46	.54	.68	.61	.48	.46					
Catheter Dis.	.62	.48	.37	.28	.49	.48	.57	.75	.69	.74	.69	.54	.80				
Valve As.	.48	.47	.26	.27	.39	.38	.70	.63	.58	.53	.58	.44	.64	.75			
Valve Dis.	.42	.36	.20	.21	.26	.17	.29	.30	.31	.35	.31	.16	.32	.46	.47		
Washer As.	.56	.71	.50	.28	.45	.56	.43	.48	.70	.58	.61	.59	.56	.56	.48	.24	
Washer Dis.	.66	.58	.49	.40	.53	.48	.62	.69	.74	.74	.80	.47	.60	.75	.77	.35	.74

The Assembly Test of the Valve Worksample must also be done to have the Disassembly Test available. This means that in order to use the three selected tests, six tests must be used.

Although some of the r's in this study are small, they may still be significant because of the small N's. Research is continuing to determine more accurately the significance of the data.

This approach to evaluating manual dexterity is not new, but the systematic approach to standardization and establishing norms, reliability and validity data has not generally been utilized. This study is an attempt to bring more objectivity into the worksample approach of evaluating manual dexterity.

Some advantages of worksample approach can be disadvantages

Some of the advantages of the worksample approach can, at times, also be disadvantages. For example, a longer time period is ordinarily used in the worksample method than with the MRM or the PPB. This gives the advantage of observing the client over a longer period of time and evaluating work habits, accuracy, and stamina, etc. These are traits which most evaluators want to assess before a client is recommended for job placement. The disadvantage comes from the fact that a quick evaluation in a few minutes is not possible.

Results of Study

☐ The results of the study have shown that worksamples can be standardized and used as objective tests. The two best worksamples, as selected by the Wherry-Doolittle, are both jobs taken directly from industry rather than worksamples which attempt to simulate certain types of jobs. While this is just a

Test-Retest Reliability Cofficients for the Clawson Worksample Tests

TABLE 5

Envelope Test		*Plastic Vial Test*	
Assembly	.96 (N=12)	Assembly	.95 (N=15)
Disassembly	.98 (N=12)	Disassembly	.87 (N=15)
Catheter Test		*Ajax Valve Test*	
Needles	.66 (N=17)	Assembly	.97 (N=14)
Sleeve	.83 (N=16)	Disassembly	.75 (N=13)
Final As.	.99 (N=14)		
Final Dis.	.96 (N=11)		

Washer Test	
Assembly	.97 (N=18)
Disassembly	.96 (N=16)

Validity Coefficients Using Work Supervisor's Ratings as the Criterion for the Clawson Worksample Tests

TABLE 6

Minn. Rate of Manipulation		*Purdue Pegboard*	
Displacing	.63 (N=21)	Right Hand	.40 (N=19)
Turning	.61 (N=21)	Left Hand	.29 (N=19)
		Both Hands	.45 (N=19)
		Assembly	.53 (N=19)
Envelope Test		*Plastic Vial Test*	
Assembly	.56 (N=33)	Assembly	.60 (N=21)
Disassembly	.56 (N=33)	Disassembly	.61 (N=21)
Catheter Test		*Ajax Valve Test*	
Needles	.59 (N=20)	Assembly	.61 (N=21)
Sleeve	.65 (N=17)	Disassembly	.66 (N=21)
Final Assembly	.57 (N=20)		
Disassembly	.69 (N=19)		

Washer Test	
Assembly	.60 (N=21)
Disassembly	.61 (N=21)

Multiple Correlation Coefficient Table for the Catheter Disassembly, Valve Disassembly, Sleeve Assembly, Washer Assembly, and Envelope Disassembly*

TABLE 7

M	V^2M ^zM	K^2	$N-1$ $N-M$	K^{-2}	R^{-2}	R	*TEST*
0		1.0000					
1	.4761	.5239	1.0000	.5239	.4761	.6900	Catheter Dis.
2	.1489	.3750	1.0526	.3947	.6053	.7780	Valve Dis.
3	.1428	.2322	1.1429	.2654	.7346	.8571	Sleeve As.
4	.0149	.2173	1.1765	.2557	.7443	.8627	Washer As.
5	.0085	.2088	1.2500	.2610	.7390	.8597	Envlp. Dis.

* The multiple correlation coefficients were derived by the Wherry-Doolittle Method.

(Continued on page 195)

More About Crafts For Detroit Blind Children

RUTH McVAY

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At the present time, sixty-five children in Detroit Classes for the Blind are being instructed in crafts. Of these children, forty-six are in resource rooms in five different schools and nineteen are in self-contained classrooms for the retarded at two other schools. Those in resource rooms range in age from four to sixteen and in grade level from pre-kindergarten through the ninth grade while those in self-contained classes range in age from seven to eighteen and in grade level from pre-kindergarten through fifth grade. Some of the children have additional handicaps, including retardation and orthopedic, speech, and hearing problems; a few are brain damaged.

Special adaptations must be made

Special adaptations must be made in the crafts program for the retarded child who is poorly coordinated due to muscular inactivity or weakness, for the crippled child who has a useless hand, for the cerebral palsied child who has difficulty controlling his limbs, and for the brain-damaged child who is easily distracted. Yet for all of these children, the crafts program provides many opportunities for creativity, for the development of technical skills, and for the appreciation of art.

This paper's purpose is to discuss some of the values of the craft program and to describe particular projects which most blind children can accomplish.

Values of the Craft Program

☐ Concepts of people, animals, trees, furniture, vehicles, and buildings can be expressed and understood through crafts. Shape, size, scale, structure, and construction methods are employed in teaching these concepts and are dependent upon the child's knowledge of his subject. Since much of the child's information is based on tactual exploration, certain limitations may result because of such factors as inaccessibility and size, as well as height and width. Knowledge gained from tactual observation is the most valuable learning tool of the braille craftsman; it supplements verbal information.

The development of art appreciation begins when children understand and enjoy varied shapes, forms, textures, and designs. The blind child whose hands are well coordinated and who is observant has potential for success in crafts. When these skills are combined with craft techniques, knowledge, imagination, and ingenuity, the creative child has unlimited possibilities. The crafts program has the following values.

Experimenting with materials, tools, and designs

I- The children learn to experiment with many materials, tools, and designs. They learn that flexible materials (cloth, clay, paper) can be shaped with the hands alone or with tools while rigid materials (wood, aluminum, tile) must be shaped with tools. They become familiar with the "feel" or texture of wet and dry, sticky and clean, hard and soft, rough and smooth supplies.

They learn to prepare and select materials in order to shape or construct their project. (Certain tools, adhesives, and methods are suitable on one material but not on another.) The children become aware of the characteristics of the various kinds of supplies such as plywood, pine, plasticene, clay, woolen yarn, and cotton yarn, and the differences between them.

Strengthening muscles

II-The various techniques which crafts employ can strengthen muscles. Hand and arm coordination improve as more difficult methods are used. When the children use both hands to crochet and knit, their finger dexterity and muscle coordination are increased. Weaving, modeling, and braiding produce the same result. Wedging clay, raising metal, and sawing wood not only strengthen muscles, but also release tension.

III- Crafts may make the child more conscious of his appearance and clothing. As a homework assignment, the pupils, usually in grades three through six, were asked to check on their clothing with regard to fabrics, styles, colors, and sizes. With practice, they soon learned to identify many of their garments. They like this assignment and enjoyed telling about their clothing and accessories. We are apt to forget that the sighted obtain knowledge about their physical appearance from casual observation. Questioning showed that many of these blind pupils did not know the color of their hair, eyes, lips, tongue, and nails. Most of them have now learned these things and are able to describe themselves.

IV- The relaxation which crafts instruction provides must not be overlooked. Sighted children have many more opportunities to relax than blind children do. Therefore, the blind children are permitted to talk quietly if it does not interfere with their work. Matters that concern them are discussed, particularly by those in junior high school. Health, peer relations, history, geography, travel training, and word definitions are frequent topics. Problems are often resolved merely by discussion with classmates and the teacher. If more explicit information is required, the crafts teacher may refer the child to his homeroom teacher, parents, or even to a certain book or map. Leaving the children free to discuss matters encourages good mental hygiene. During discussions the pupils also share ideas about crafts and motivate and encourage each other to improve their work and experiment with new techniques or media.

Projects Presently Completed

☐ The program this year has been a study in self-concepts, self expression, improved skills, and advanced techniques. As usual, a varied crafts program was pursued but our curriculum also included six special projects. These provided new and unique opportunities for self-expression.

Self-portraits modeled

I- Self-portraits were modeled. These were heads or full length figures. The student was encouraged to express his own concepts, not those of his peers or of sighted adults. As a result, his knowledge, exploration, and observations were combined in his interpretation of himself. Self-portraits are indicative of a child's ideas and may reflect his inhibitions, emotions, or the presence of severe retardation.

Action poses attempted

Some children tried action poses for the first time. Action and scale usually are not readily apparent to the blind child. He needs an awareness of changes in posture and position for various activities. Scale is learned by comparison of parts, sizes, and locations. Models were also made of other people: parents, siblings, and friends. Some figures were placed in a modeled woodland or park scene or upon appropriate furniture. Animal models usually indicated how carefully the child observed his pets.

An evaluation of the child's progress in modeling requires knowledge of his age, mentality, visual acuity, and the age when he became blind. In addition, the teacher should be familiar with the development periods in sighted children's art.

During a fifteen months period, the writer kept records of the models of people which were made by Detroit blind students. This information was compared with sighted children's representations of people as described and classified by Victor Lowenfeld (1). The Detroit study indicated that blind children follow the same developmental stages in representing the human figure as do sighted children. The blind work with plasticene or clay, as do the sighted who also draw, and paint the same subjects. Clay and plasticene are used by the blind children because they are plastic, adaptable, and easy to handle. Although the blind were limited to modeling, a direct correlation was apparent between the blind and sighted. However, our students are often older when they enter corresponding stages. Those children who utilized previous vision (either normal or low vision) or who had tactual observation skills were frequently more advanced than their peers in the same age or grade. The poor observer falls into a lower developmental category.

Errors in perspective common among blind children

☐ Certain errors in perspective seem to be common among blind children. Many of them shorten legs on people and animals, and enlarge eyes and noses. Others make gigantic hands and ears. These characteristics reflect lack of understanding of scale due to the absence of visual clues. However, certain limbs and features may be emphasized or ignored according to their value in the child's judgment. Thus, it is easy to understand why hands, noses, and ears are important to the blind. The eyes are emphasized because the child—even though he is totally blind—realizes their importance.

Three-dimensional masks

II- Three-dimensional decorative masks were made by junior high school students. One mask was plaster; the others were wood plus other materials. Many girls learned basic woodworking with this project. The masks were abstract except for one which was a self-portrait. All masks indicated knowledge of facial parts and required selection or construction of suitable materials to produce their ideas.

One mentally retarded girl who is also crippled made a wooden mask. Having the use of only one hand, she was unable to cut or shape wood. Therefore, she sanded a plywood square and decorated it with cloth, buttons, and yarn which she had chain-stitched.

Bagdolls popular with very young and mentally retarded

III- Large paper bagdolls (about 36″ tall) were made by young children in grades one to three and by the mentally retarded. This project came about because of a ten-year-old girl's desire to make a doll. The girl is retarded and has corrected vision of 20/400. Since. her manual dexterity is poor, the project had to be planned so that she could achieve success with her limited skills. Paper bags were used for the head and body. She drew features and colored hair on the bag, then folded and cut oaktag limbs and paper clothing. These parts were stapled or glued after the bags were stuffed.

Another retarded child with 2/200 vision, a brain injury, and a crippled hand also enjoyed the same project. Despite these handicaps, she drew features, glued yarn hair, and cut and stapled arms and legs.

A boy who is mentally retarded, cerebral palsied, and epileptic also enjoyed this lesson but needed assistance with stapling. The features on his doll and those of most of the children were made from various materials such as felt, yarn, or loopers.

Some children added details such as hair, clothing, and three dimensional ears to the basic shape. The children loved their completed dolls.

IV- Wooden or papier-mâché figures depicting the nativity, angels, shepherds, and Santa were made at Christmas. Costumes were painted or made with cloth. Each child's figure varied in the sizes, designs, and construction methods used. Solid construction was used with wood but limbs were movable. Hollow construction was employed on papier-mâché figures. These methods of construction were new for the upper elementary and junior high students. This project could be applied to historical or fictional characters, seasonal events, and dioramas.

Making houses required each child to learn about his own

V- Each child in one of the elementary classes made houses. Before beginning the project, the children were required to learn about their homes and select suitable boxes and materials for constructing models, of them. Houses were made with one or two floors; one also had a basement. The backs were left open so that the children could decorate and furnish the interiors as well as the exteriors. Furniture, rugs, and curtains were made with a variety of materials and techniques and placed in the rooms.

The children gained much information about their homes. However, their observation skills varied greatly as did their ability to construct and use necessary materials. The best workmanship and most detailed observation came from a ten and a half-year-old boy of average mentality whose vision is limited to light perception.

The above projects supplemented the usual crafts experiences and built on previous preparation. New techniques and materials are continually added to the curriculum in order to formulate better methods and to increase learning experiences.

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College Professors' Reactions to Blind Students

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Nine years ago the Chicago Lighthouse for the Blind conducted the first summer college preparatory program for blind high school graduates who were entering college that fall. Last summer I was asked to be an instructor in that program, as I had on two previous occasions. As a check on the validity of my own observations, I decided to write to a sample of college professors across the country to find out what reactions they might have had to blind students.

I wrote to a random sample of 100 college professors, in both private and state colleges and universities. If they had not had any contact with blind students they were not expected to reply, although one or two of that type did. Those who had had blind students were asked to respond to two questions: 1. Did you encounter any special problems in dealing with the blind students in your classes; and if so, how were the problems resolved? 2. Did you feel that the blind students took the proper degree of responsibility for any help they needed, being neither too dependent nor too aggressive?

Replies Received

☐ I received replies from 25 professors, representing six different areas of study, and 11 private institutions and 14 state universities. There is, of course, no way of knowing whether those who did not respond really did not have contact with blind students, or whether, if they did have such contact, their responses would have been of the same pattern as the replies received. Since the replies received do include some critical comments, it may be hoped that they represent a fairly typical cross section of reaction to blind students. It may be of interest to quote directly or to paraphrase some of the comments received, and then to make some summarizing concluding remarks.

Outside reading causes problems

1. Midwestern state university; psychology; two students. In a graduate seminar based on a wide range of unassembled readings, the blind student will have a problem which will not be solved entirely by liberal provisions for reader assistance. One of my graduate students did very well on oral reports in the seminar, using braille notes, but could not cover as much material as the sighted students. Both of these students were fanatically independent and at the same time ruthless manipulators. One of them is now avoided by his former friends because he exploited those who knocked themselves out to help him.

2. Midwestern state university; psychology. No problems.

3. Midwestern state university; French; three students. All good students and pleasant people.

4. Eastern private university; Spanish; four students. One girl asked to bring a tape recorder to class, but when I said this would cramp my style she understood and managed very well without it. One student was not especially gifted and was too willing to accept compromises. He had obviously been coddled by

teachers who did adapt themselves to him and he was probably confused in assessing his own talents. He received his degree, but quite properly dropped out of graduate school after one semester. I have noticed that readers are not as satisfactory as having books on tape or in braille. My students sometimes fell behind because of the difficulty of keeping up with reading assignments. One student used a braille printer and the noise of it did not bother me or the other students after the first few sessions.

5. Western private university; economics; one student. I had the blind student sit in the front row so that the noise of his braille steno-type machine would not distract the other students, but it turned out not to be a problem. One girl I know who went into secretarial work was so enthusiastic about her work that she became known as an eager beaver and was somewhat rejected by fellow employees.

6. Eastern state university; psychology; several students. No problems.

7. Southeastern state university; English; two students. No special demands except for taking tests on the typewriter.

8. Southern state university; English; several students. One student had serious psychological problems. The others caused some slight additional trouble, such as arranging for tests, but nothing one is not wholly willing to do for students who are interested in learning.

Some concepts difficult to communicate to the blind

9. Midwestern state university; psychology; several students. Some concepts, such as spatial relationships, are difficult to communicate to the blind. A blind person may use his very real difficulty to further his dependent relationship. Sighted people may do this too, but the blind person is in an especially vulnerable position.

10. Eastern private college; sociology; several students. No problems.

11. Midwestern state university; sociology; two students. Statistical and tables require additional effort for the blind person. Almost all of my experience has been with successful adaptations and I have not found any over aggression or over dependence. Perhaps we get a select group here.

12. Midwestern state university; English. No Problems.

13. Eastern private university; English; two students. One did beautifully; one did poorly. This probably reflected relative ability rather than adaptation to blindness.

14. South central state university; psychology; many students. I remember one boy and one girl who were unusually aggressive, but I was able to harness their drives successfully. It would seem that the blind students I have encountered have been carefully selected, somehow, and prepared for college work.

15. Southeastern state university; music; twelve students. No problems. I taught in a school for the blind for a few years and saw the same problems, limitations, and achievements there as in other schools.

16. Midwestern private college. No problems.

17. Midwestern private college. No problems.

18. Midwestern private college; foreign language. No problems. Some difficulty for the student in getting texts, especially in phonetics. This required some additional help from the instructor.

Blind students often reluctant to ask for special adaptations

19. Western state university; psychology. The major problem that I have encountered with blind students at this university concerns the regulations of the Vocational Rehabilitation Agency to the effect that every blind student must carry a full course load. It seems to me clear that a blind student has to spend considerably more time than a sighted student in acquiring information. Therefore, what is considered a normal course load is often inordinately heavy, particularly when a blind student comes to campus in the fall at a time when everything is new, and much energy must be expended in structuring the situation, finding readers, getting acquainted with the campus. There seems to be a fear that blind students will not work hard if they take a lighter load. My impression is that most of the blind students I have known have been a bit too reluctant to ask for the special adaptations they need, such as in test taking.

20. Midwestern private college; music; two students. I had to make some adaptations and give some special help to these students. I felt they deserved the good grades they got even though they had not done exactly the same work as the other students. I might find it a bit onerous if I had a blind student in every class and had to take the extra time required in each course.

21. Eastern private university; English; one student. Student had some difficulty in keeping up with assignments and his handwriting was a bit irregular.

22. Midwestern private college; music; three students. Two were very successful. One was quite retiring and eventually dropped out.

23. Midwestern private college; psychology. No problems. Good relations with blind students.

24. Western state university; psychology; one student. No problems.

25. Midwestern state university; English; one student. I made an adaptation on one part of a course which would have been very difficult for the student and which was not essential for the type of work she was planning to do. She has done very well.

General Picture is a Favorable One

☐ The general picture presented by these comments is certainly a favorable one. Since a good many of the students referred to went through college before college preparatory courses were even thought of, and before Vocational Rehabilitation offices were very active in this area, it is likely that there was a kind of selection or survival of the fittest, or most capable. With the general "Sheepskin Psychosis"[1] of society, and the greater number of blind students who are going to college, we may begin to get different reactions. It seems to this writer that the more we work at persuading blind students to go college, the more likely we are to enroll more of them who are dependent and retiring. This is not to suggest that we stop persuading, but that we recognize that our success in this area may also bring with it some new problems.

Complications may arise with large increase in number of blind students

Just the mere fact of numbers may complicate the picture. As one or two professors indicated, they do not mind taking the extra time for an occasional blind student, but problems might arise if the number of blind students were to be significantly increased.

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[1] From the title of a book by John Keats, published by J. B. Lippincott, 1963, in which he comments on our current obsession with college education.

Several people comment that they soon got used to the noise of the braille printer in class. This author, who finds such machines intolerably noisy, wonders if they protest too much that the noise is not distracting.

The Need for Lighter Course Loads

☐ This writer concurs completely with the comments on the need for a lighter course load. Noting the tremendous increase in the quantity and quality of reading during 14 years of teaching, the author really wonders how any blind student can keep up at 175 words per minute (average recording speed), when sighted students with an average reading speed of 250 words per minute get snowed under. Fortunately, most blind students appear to be making it somehow.

It is to be hoped that the general reaction to blind students by college professors will continue to be as favorable in the future as this limited survey shows it to be at present.

A Study of the Clawson Worksample Tests—*Continued from page 187*

preliminary study, it seems the worksamples compare favorably with the MRM and have higher validity coefficients than the PPB. The reliability data seems to be higher than has generally been reported by other manual dexterity tests. The worksamples need further study using other populations and other validity criteria to see if these results still hold true.

Statistics

In applying the Wherry-Doolittle formula, it is interesting to note some of the statistics about the selected tests. The three best tests, the Catheter Disassembly, Valve Disassembly, and Sleeve Assembly, also have the highest validity coefficients as determined by supervisor's ratings. The numerical order of the validity coefficients are in the same order as the Wherry-Doolittle selected them. The latter tests also have the lowest mean intercorrelations with the other tests. These three tests are all part of the two worksamples taken directly from industry. These results seem to indicate that tests using actual jobs are better predictors than worksamples simulating jobs. This is reasonable in light of the fact that the actual job has greater face validity than a simulated task. In view of these findings, it seems the two special features of the CWT—greater face validity and longer testing time—can contribute to substantial test reliability and validity.

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Editorial Notes

In 1900 there were 3.1 million persons 65 years or older in the United States. In 1960 there were 16.6 million. It is estimated that by 1970 there will be 19.6 million persons 65 or older in this country and by 1980, 23 million.

These figures, which reflect both the increase in population and the increased rate of life expectancy, have important implications for those of us who are concerned with blindness.

According to the National Society for the Prevention of Blindness, there were approximately 416,400 legally blind* persons in the United States in 1965. About 50 percent of these legally blind persons are 65 years of age or older. And 81 percent of this 50 percent are 70 years of age or older. In addition, the Society reports that more than 50 percent of new cases of legal blindness occur in persons 65 years of age or older.

The National Center for Health Statistics, defining blindness as the inability to read ordinary newsprint even with the aid of glasses, lists the United States blind population as almost one million, of which 65 percent are 55 years of age or older.

Whichever set of statistics one subscribes to, it is evident that the majority of blind persons in this country are elderly. And that with the rapidly increasing rates of life expectancy, we can expect an increase rather than a decrease in the number of blind who are elderly.

In vivid contrast to the foregoing statistics is a picture of the actual distribution of services to the blind.

For an article that appeared in the Winter 1967 issue of *Social Problems,* Dr. Robert A. Scott of Princeton University made a study of 798 agencies for the blind in the United States. Sixty-seven percent or 529 of these agencies have services primarily for employable adults and children. Twenty-three percent or 187 are "mixed" agencies offering services to the blind of all ages. One percent do not offer any direct services. Only nine percent of 71 agencies offer services exclusively to the elderly blind.

Doctor Scott's analysis of the services offered by this nine percent provides an even grimmer picture. Twenty-one of these agencies are institutions that house and care for approximately 1000 older blind persons. The remainder of the agencies are state offices responsible for administering programs of aid to the needy blind.

Nor can this journal be proud of its own record in regard to this aspect of work for the blind. Doctor Scott also made a study of the articles appearing in the *Outlook* from 1907 to 1963. Of 1,069 articles that appeared during that time, only two percent were concerned with the problems of the aging blind.

There are many reasons, historical, cultural, and sociological, some of which have a good deal of validity, for these inequities in services to the blind. Indeed, neglect of the elderly is by no means confined to this one field. But fortunately, there are signs in many quarters that this long neglect is coming to an end. Many of our colleagues in other departments at the Foundation and many others across the country are deeply involved in looking for answers.

The Outlook does not have the answer to this problem. Nor is it our place to provide one. However, we can provide an impartial forum for what we think could be a meaningful dialogue on the problem of the aged blind. A dialogue we instigate herewith with the following questions.

Who are the aged blind?

What efforts are we making to reach these people and their families?

How conscientious are the elderly about havng regular eye check-ups?

Are the needs of the aged blind different from the needs of the aged in general?

Are the available services meeting current needs?

What and where are these services—what of their distribution and duplication?

In agencies that do serve aged blind clients, are these clients given an opportunity to express their needs?

What services are most important for the aged blind?

Are the services needed best provided by agencies for the blind or by generic agencies?

Are we actively encouraging research in the field of geriatric blindness?

The last question, and perhaps the first too:

Is the problem of the aged blind primarily a problem of aging or of blindness?

We will be asking ourselves these questions during the next several months and we hope our readers will do the same. We also hope that readers will share their thoughts on the subject with us in the form of articles and letters to the editor.

M. E. M.

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*Visual acuity for distant vision of 20/200 or less in the better eye with best correction; or visual acuity of more than 20/200 if the widest diameter of field of vision subtends an angle no greater than 20 degrees.

Current Literature

Behavior Patterns and Visual Rehabilitation After Early and Long-Lasting Blindness, by Alberto Valvo. *American Journal of Ophthalmology* (Ophthalmic Publishing Co., 160 East Grand Avenue, Chicago, Illinois 60611), Vol. 65, No. 1, Part 1, January 1968, pp. 19-24. Dr. Valvo's paper is based on information concerning some fifty patients successfully operated on in San Giovanni Hospital in Rome. The new surgical procedure (osteo-odonto-kerato-prosthesis) was devised by Dr. Strampelli and consists of inserting a piece of dental root containing an acrylic lens into the cornea.

Deprivation: A Study of Sighted Children of Blind Parents, by Kathleen L. Shepherdson. *The New Beacon* (Royal National Institute for the Blind, 224 Great Portland Street, London W1, England), Vol. 51, No. 607, November 1967, pp. 282-288. Report prepared for the Association for the Blind in Melbourne, Australia. Miss Shepherdson is the officer in charge of the Welfare Department of the Association. Her study is based upon an investigation of eighteen families.

The Jewish Blind Society, by M. Vanson. *The New Beacon* (see address above), Vol. 51, No. 606, October 1967, pp. 255-259. The story of the Society originally established in 1819 as the Institution for the Relief of the Indigent Blind of the Jewish Persuasion.

The White Cane—The Long and Short of It, by William Goodman. *Journal of Rehabilitation* (National Rehabilitation Association, 1522 K Street, N.W., Washington, D.C. 20005), Vol. 33, No. 6, November/December 1967, pp. 18-19. Mr. Goodman, head instructor of the mobility program at Florida State University, served as consultant in a 1965 research project comparing mobility practices in England and America—the long cane, as used in America, and the short cane, as used in England.

Lip-Reading Braille, by Pat Thiruchelvam and Catherine Cheong. *The Teacher of the Blind* (Royal School for the Blind, Church Road North, Wavertree, Liverpool 15, England), Vol. 56, No. 1, October 1967, pp. 42-43. The reading difficulties of eleven year old Mat Salleh, a pupil in the St. Nicholas School for the Blind, Penang, West Malaysia, are recounted by his teachers.

Graphical Representation, by J. Whittaker. *The Teacher of the Blind* (see address above), Vol. 56, No. 1, October 1967, pp. 29-36. The author discusses new techniques and apparatus used to allow blind children to study a variety of mathematical topics.

Some Factors in the Aetiology of Behaviour Disorders of Blind Children, by Cyril E. Williams. *The Teacher of the Blind* (see address above), Vol. 56, No. 1, October 1967, pp. 24-28. Dr. Williams, a psychiatrist reviews behavior disorder factors as reported in various studies in both England and America.

A Demonstration Program for Intellectually Gifted Blind Youth, by Elena D. Gall. *The International Journal for the Education of the Blind* (1839 Frankfort Avenue, Louisville, Kentucky 40206), Vol. 17, No. 1, October 1967, pp. 1-7. Description of a special program conducted in the summer of 1963 at Hunter College and the New York Institute for the Education of the Blind.

Performance Tests of Intelligence for the Blind Reviewed, by William L. Dauterman, Bernice Shapiro, and Richard M. Suinn. *The International Journal for the Education of the Blind* (see address above), Vol. 17, No. 1, October 1967, pp. 8-16. Copies of the bibliography to this article are available from the senior author (Stanford University School of Medicine, Palo Alto California) at 50c each.

Physical Education for the Visually Handicapped, by Philip H. Hatlen. *The International Journal for the Education of the Blind* (see address above), Vol. 17, No. 1, October 1967, pp. 17-21. This article was delivered as a paper at the Western Regional Conference of the Council for Exceptional Children, Las Vegas, Nevada, December, 1966.

Teaching Orientation and Mobility to Mentally Retarded Blind, by Paul R. McDade. *The Long Cane News* (Peripatology Program, Boston College, Chestnut Hill, Massachusetts; Center for Orientation and Mobility, Western Michigan University, Kalamazoo Michigan), Vol. 2, No. 3 [1967], pp. 3-8. Report on a three-year Orientation and Mobility Demonstration and Research Project currently being conducted by the auhor at the Walter E. Fernald State School in Waltham, Massachusetts.

The Causes of Blindness in Childhood; A Study of 776 Children with Severe Visual Handicaps, by G. R. Fraser and A. I. Friedmann. The Johns Hopkins Press (Baltimore, Maryland 21218), 1967. 245p. $12.00. A presentation of the results of a clinical and genetic study of nearly one-fourth of the blind and partially sighted children registered in England and Wales in 1963.

To Guide and Guard, by Alexandra Hasluck. University of Western Australia Press (Available from Lawrence Verry, Inc., Mystic, Connecticut 06355), 1967. 75p. $5.00. A history of the guide dog movement in Australia from 1951 to 1962 written at the request of the Guide Dogs for the Blind Association of Western Australia, Inc.

The Psychology of Blindness, by Ralph S. Riffenburgh. Geriatrics (Lancet Publications, 64th at Valley View Road, Southdale Park, Minneapolis, Minnesota 55435), Vol. 22, October 1967, p. 127-133. Dr. Riffenburgh discusses the reactions of the newly blinded geriatric patient and the reactions of the patient's family. He outlines the contributions the physician can make toward such patients' successful adjustment.

Typewriting for Visually Handicapped Children; a Teacher's Guide, edited by Edith Cohoe Kirk. The Board of Education of the City of Detroit (Mr. Walter Gleason, Administrative Assistant, Information Service, Schools Center Building, 5057 Woodward, Detroit, Michigan 48202), 1967. 111p. $1.50. The fourth edition of a guide for teachers of blind and partially seeing children.

M.M.R.

News in Brief

■ Lawrence Blaha, principal investigator and mobility specialist for the mobility project at California State College at Los Angeles, died on March 27. He was 49 years old.

Mr. Blaha, who was a graduate of Roosevelt and Western Michigan universities, had also served on the staff at the Veterans' Administration Hospital at Hines, Illinois for 13 years. For nine of those years he was assistant superintendent of orientation and mobility therapists.

■ The Tennessee School for the Blind and the department of special education at George Peabody College for Teachers have announced a short-term institute for teachers of late-blinded students who need to develop reading skills in braille. This non-credit institute will be held October 15-18 at the Tennessee School for the Blind.

Inquiries and applications should be addressed to the director of the institute, Miss Freda Henderson, reading specialist, Tennessee School for the Blind, 115 Stewart's Ferry Pike, Donelson, Tennessee 37214.

■ A 13-page pamphlet on teaching techniques for blind homemakers is available from the Brooklyn Bureau of Social Service and Children's Aid Society. The pamphlet, which was prepared by Joy Gilpin, a home teacher for the Bureau, covers cooking, housekeeping equipment, ironing, washing clothes, and hand and machine sewing.

Free copies can be obtained by writing to Leonard Becker, Director of Public Information, Brooklyn Bureau of Social Service and Children's Aid Society, 285 Schermerhorn Street, Brooklyn, N. Y. 11217.

■ A program which may significantly increase the availability of tape recorded information for the blind and physically handicapped has been undertaken by the Columbia Lighthouse for the Blind, Washington, D. C., the Division for the Blind and Physically Handicapped of the Library of Congress, and the 3M Company, St. Paul, Minnesota.

The 3M Company has donated 100 Wollensack recorders for distribution to volunteer recordists throughout the country. The Columbia Lighthouse and the Division for the Blind and Physically Handicapped will administer the program, screening volunteers, assigning recorders, determining the needs for recorded material, and adding selected material to the Library's collection of tape recorded books.

■ William A. Taylor has joined National Industries for the Blind in the newly created post of assistant to the general manager. Previously, Mr. Taylor was administrator, Industrial Rehabilitation Services, for the California Division of Rehabiltation for the Blind.

■ Hazel Augustine has been appointed casework supervisor for children's and adolescent services at the Lighthouse, the New York Association for the Blind. Miss Augustine formerly served as assistant director of social service at Beekman-Downstown Hospital, New York City, and as supervisor of psychiatric social work in the department of psychiatry at Harlem Hospital, New York City. A graduate of the Smith College School of Social Work, Miss Augustine is a member of the National Association of Social Workers and the American Orthopsychiatric Association.

Coming Events

June 3-7 National Rehabilitation Association, Region VIII Convention, Casper, Wyo.

June 12-14 National Rehabilitation Association, Region I Convention, New Haven, Conn.

June 15-16 American Diabetes Association, San Francisco, Calif.

June 23-27 American Association of Instructors of the Blind, Toronto, Ont., Can.

June 26-28 National Association of Hearing and Speech Agencies, National Conference, Bal Harbor, Fla.

July 2-5 National Federation of the Blind, Annual Meeting, Des Moines, Iowa

July 7-10 American Association of Workers for the Blind, Toronto, Ont., Can.

July 16-20 American Council of the Blind, Annual Convention, San Francisco, Calif.

July 21-28 Blinded Veterans Association, Annual Convention, San Francisco, Calif.

July 31-Aug. 5 World Organization for Early Childhood Education, Washington, D.C.

Aug. 18-24 International Council on Social Welfare, International Council of Social Work, Helsinki, Finland

Aug. 26-29 American Sociological Association, Boston, Mass.

Aug.-Sept. 3 American Psychological Association, San Francisco, Calif.

October 6-10 National Industries for the Blind, Annual Meeting, Seattle, Washington

October 8-11 National Association for Retarded Children, Annual Convention, Miami, Fla.

October 19-23 National Rehabilitation Association, Annual Convention, New Orleans, La.

October 28-31 American Association of Homes for the Aging, Annual Conference, San Francisco, Calif.

November 1-5 American Academy of Ophthalmology and Otolaryngology, Annual Meeting, Chicago, Ill.

November 11-15 American Public Health Association, Detroit, Michigan

November 18-22 National Association for Mental Health, Annual Meeting, Boston, Mass.

November 20-22 National Society for the Prevention of Blindness, Annual Meeting, New York, N.Y.

December 5-6 National Social Welfare Assembly, New York, N.Y.

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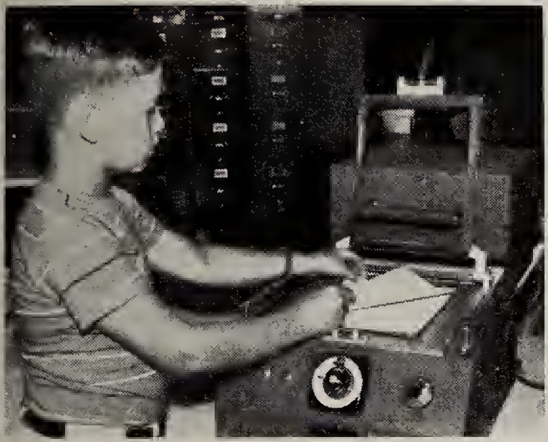

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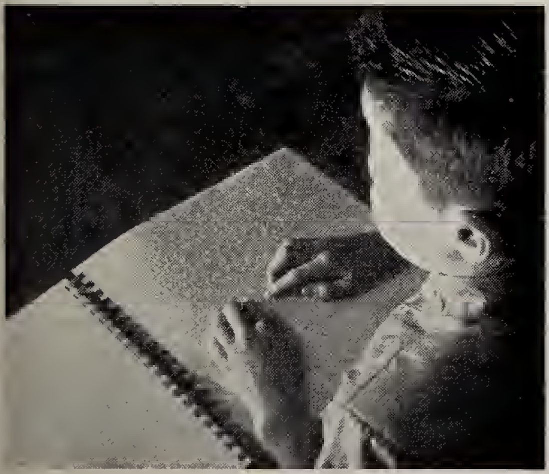

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THE NEW Outlook FOR THE BLIND

HELEN KELLER 1880—1968

September 1968 Volume 62 Number 7

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Helen Keller

Helen Keller dedicated her life to helping her fellow men, particularly the blind, the deaf, and those burdened by other physical handicaps.

Her chief characteristics were wisdom, a keen sense of humor and a boundless enjoyment of life. She, as much as anyone who has ever lived, knew happiness and, equally, gave happiness to countless numbers of people the world over. To those of us who knew her, to the millions who saw her, who heard her speak and have read her books, to the children in scores of countries who have studied her life, to all mankind she brought a realization of the heights to which one can aspire and which each of us should strive to attain.

Her life has been called a miracle, and a miracle it was, but a miracle accomplished only through a combination of indomitable will and towering strength that flowed from a faith and a determination that enabled her to accomplish what seemed impossible.

She gave of herself unceasingly—speaking, writing, traveling, working constantly to improve the conditions of blind people. At the outset of her work, she recognized that the development of programs to meet the needs of the blind was hampered by the lack of legislation in most states providing for the creation of state commissions for the blind and for coordination of action on state and federal levels. The impact of her personality and her efforts was the single most important factor in effecting the change leading to the nationwide network of state organizations that serve blind people today.

In social welfare and civil rights Helen Keller was half a century ahead of her time. She wrote:

> "My love for America is not blind. Perhaps I am more conscious of her faults because I love her so deeply. The process of the emancipation of mankind from old ideas is very slow. The human race does not take to new ways of living readily, but I do not feel discouraged."

Her work for blind people took her to the farthest reaches of the globe. She lectured on their behalf in 35 countries on five continents. Wherever she went, she was received with a massive outpouring of love and admiration. She was the moving spirit which led to a new era of work for the blind of the world. Tirelessly she strove to fulfill her dream, "that every blind child have an opportunity to receive an education . . . and every blind adult, a chance for training and useful employment."

And to the entire world she was a living lesson in courage, in the force of faith, in the need for tolerance, and in the way of true happiness. She will be missed.

Helen Keller: 1880 — 1968

Helen Keller, who died June 1 at the age of 87 at Arcan Ridge, her home in Westport, Connecticut, was one of those singular persons who became a legendary figure during her own lifetime. Through books, plays, films, and her own tireless travels, Helen Keller long ago became, for the whole world, a symbol of how the human spirit can overcome even the most devastating handicaps.

Too often obscured by the legend that was Helen Keller was the real and multi-faceted person whose accomplishments would have brought celebrity to one not afflicted with her handicaps. It is this Helen Keller—who learned without hearing to do a passing fox trot, who was an active campaigner for women's rights, who entered vaudeville when her royalties could no longer support her, who at the age of 75 undertook a grueling world tour—we hope you will find in the pages of this memorial issue of the *Outlook.*

Miss Keller dancing with a blinded war veteran during a 1946 visit to the Istituto Romano dei Ciechi di guerra (Roman Institute for the War-blinded) in Rome, Italy.

Helen Adams Keller was born, physically whole and healthy, on June 27, 1880 in Tuscumbia, Alabama where her father, Captain Arthur Keller, edited a daily newspaper, *The North Alabaman.* When she was 18 months old, she was struck with a raging fever that left her totally blind and deaf. Deafness at such an early age brought an added handicap—muteness. Helen emerged from infancy a strong but wild and unruly child who had little understanding of the world around her.

Her real life began on a March day in 1887 when she was a few months short of seven years old. On that day, which Miss Keller was always to call "The most important day I can remember in my life," Anne Mansfield Sullivan, a 20-year-old graduate of the Perkins School for the Blind who had regained useful sight through a series of operations, came to Tuscumbia to be her teacher.

How Miss Sullivan turned the near-savage child into a human being and succeeded against all odds in awakening her remarkable mind is familiar to millions, most notably through William Gibson's play and film, *The Miracle Worker,* and through Miss Keller's autobiography of her early life, *The Story of My Life.*

Her dormant intelligence awakened, Helen Keller proceeded quickly to mastering the alphabet, both manual and in raised print, and gained facility in reading and writing. When she was just ten—and already world famous—she expressed a desire to learn how to speak. While she never quite achieved her consuming ambition to master normal speech, years of continuing effort enabled her to make herself understood even to strangers.

Helen Keller early determined to go to college and in 1894, when she was 14, she began formal schooling in preparation for it. She first attended

Anne Bancroft, who played Anne Sullivan in The Miracle Worker *with Helen Keller. This photograph was taken at an 80th birthday celebration for Miss Keller in 1960.*

the Wright-Humason School for the Deaf in New York City and then the Cambridge (Mass.) School for Young Ladies. She and Miss Sullivan also spent a year at Perkins. In 1900 she entered Radcliffe College from which she was graduated *cum laude* in 1904. Throughout these years and until her own death in 1936, Anne Sullivan was always by Helen's side, laboriously spelling book after book, and lecture after lecture, into her pupil's hand.

Polly Thomson, Helen Keller and Anne Sullivan Macy with Charlie Chaplin. The call on Mr. Chaplin was made while Miss Keller was in California to make the film Deliverance.

While still at Radcliffe, Helen Keller began her writing career. In 1902, *The Story of My Life* which had first appeared in serial form in the *Ladies Home Journal,* was published in book form. This was always to be her most popular and best known work and today it is available in more than 50 languages. Miss Keller's other published works include *Optimism, An Essay, The World I Live In* (an answer to critics who questioned her ability to know the things she described), *The Song of the Stone Wall, Out of the Dark, My Religion, Midstream—My Later Life, Teacher: Anne Sullivan Macy, Helen Keller's Journal, Helen Keller in Scotland, The Open Door* and others. She was also a frequent contributor to journals and magazines, writing most often on blindness, deafness, socialism, social issues, and women's rights.

The afflictions of blindness and deafness and the problems they brought were of paramount concern to Helen Keller. In 1906 she became a member of the Massachusetts Committee for the Blind. And she was to devote the major portion of her public life to them from 1924 on as a member of the staff of the American Foundation for the Blind, (see "Helen Keller and the American Foundation for the Blind" by M. Robert Barnett on page 206). But Helen Keller was also, throughout her life, concerned with larger social issues, and other oppressed minorities from women to slum dwellers. This interest together with a reading of H. G. Wells' *New Worlds For Old* and conversations with John Macy, a Harvard instructor, critic, and prominent socialist who had married Anne Sullivan in 1905, led her to join the Socalist party in 1909.

Miss Keller's espousal of socialism was no case of celebrity name-lending; for many years she was a contributor to various socialist journals, and a speaker at socialist functions. She also made an effort to bring socialist views to a larger public through letters to the editor and articles in general periodicals.

Helen Keller with John Macy and Anne Sullivan Macy in 1914.

Her refusal to conform to her "image"—as her embracing of socialism at a time when it was unpopular proves—was one of Helen Keller's most refreshing characteristics. She got immense enjoyment out of the vaudeville tours she and Anne Sullivan made between 1920 and 1924 and was always able to laugh about *Deliverance,* the silent film she made in 1918. It was not a success, either artistically or financially. Nor did she deny that she was occasionally bitter and frustrated by her afflictions.

In was in 1930 that Helen Keller, together with Anne Sullivan and Polly Thomson, a Scottish woman who had joined the household in 1914, began the world tours which were to garner her so much attention—and so much attention for the blind and deaf—in her later years. Along with the attention came numerous honors including honorary degrees from the universities of Glasgow, Berlin, Delhi, and Witwaterstrand, the Chevalier's ribbon of the French Legion of Honor, and Brazil's Southern Cross. There were few world personages, from Grover Cleveland to Charlie Chaplin to Nehru to John F. Kennedy, that she did not meet. And many, among them Katharine Cornell, Van Wyck Brooks, Alexander Graham Bell, Jo Davidson, she counted as friends.

Helen Keller outlived both of her companions; Anne Sullivan Macy died in 1936 and Polly Thomson in 1960. Mrs. Winifred Corbally became Helen Keller's companion on Miss Thomson's death. Miss Keller made her last public appearance in 1961 at a Washington, D.C. Lions Club meeting, at which she received its Humanitarian Award for her lifetime of service to humanity and for providing the inspiration for the adoption by Lions International of its sight conservation and aid to the blind programs. During that visit she also called on President Kennedy at the White House.

Helen Keller chatting with President John F. Kennedy in 1961. This was one of her last public appearances. In the middle is Miss Keller's secretary, Mrs. Evelyn Seide.

Miss Keller's retirement did not mean that she disappeared from the minds and hearts of her countrymen and the world. In 1964 she was one of 30 Americans to receive the Presidential Medal of Freedom, the highest peacetime civilian honor her country can bestow. In 1965, she was one of 20 elected to the Women's Hall of Fame at the New York World's Fair. Miss Keller and Mrs. Eleanor Roosevelt received the most votes among the 100 nominees.

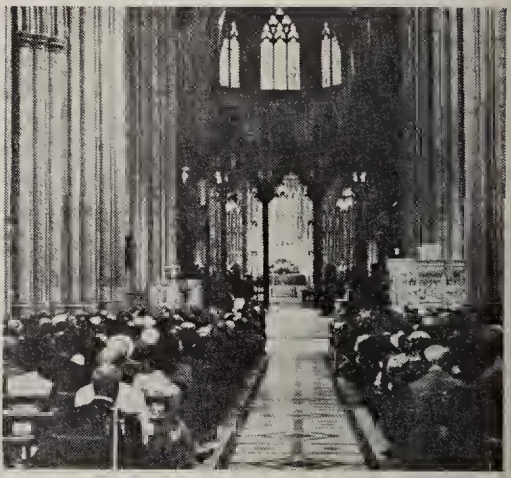
On June 5, 1968, Helen Keller's ashes were buried next to those of her beloved companions, Anne Sullivan Macy and Polly Thomson, in Washington Cathedral's St. Joseph's Chapel. The private burial, attended only by her family and close friends and associates, was preceded by a public memorial service in the main Cathedral.

Twelve hundred mourners, led by Chief Justice of the Supreme Court Earl Warren and Mrs. Warren, gathered to pay tribute to a woman who, in the words of Senator Lister Hill of Alabama who delivered the eulogy,

> . . . will live on, one of the few, the immortal names not born to die. Her spirit will endure as long as man can read and stories can be told of the woman who showed the world that there are no boundaries to courage and faith. . . . Although she was denied the light of day, Helen Keller cast more of the radiance of heaven than any person on earth. Within this radiance and light and example of her life, may we carry on in our troubled world, worthy of her deeds, her hope, and her faith—a faith of which the Lord spoke in His words. "Then the eyes of the blind shall be opened and the ears of the deaf shall be unstopped."

The nondenominational service also included several hymns sung by a 59-voice choir from the Perkins School for the Blind and a prayer delivered by The Very Reverend Francis B. Sayre, Jr., dean of the Cathedral. Through the manual alphabet, Elizabeth Benson, dean of women at Gallaudet College for the Deaf, interpreted the service for the hundreds of deaf persons present.

Other mourners included Dr. Peter Salmon of the Industrial Home for the Blind, Miss Keller's long-time friend Katharine Cornell, delegates from the American Foundation for the Blind, the American Foundation for Overseas Blind, Perkins School for the Blind, and Gallaudet College for the Deaf.



The congregation listening to the Perkins' choir during Miss Keller's funeral.

We hope that the pages of the *Outlook* that follow illustrate, in her own words and in the words of others who knew her, why Helen Keller was held in such esteem. While it is by no means either a rounded or complete portrait of the great lady, we hope that it does at least illuminate some of the facets of her personality too often hidden from public view, and indicate some of the very real contributions she made to the welfare of the blind in particular and to all of the disadvantaged in general. M. E. M.

According to all art, all nature, all coherent human thought, we know that order, proportion, form are essential elements of beauty. Now order, proportion, and form are palpable to the touch. But beauty and rhythm are deeper than sense. They are like love and faith. They spring out of a spiritual process only slightly dependent upon sensations. Order, proportion, form cannot generate in the mind the abstract idea of beauty, unless there is already a soul-intelligence to breathe life into the elements. Many persons, having perfect eyes, are blind in their perceptions. Many persons, having perfect ears, are emotionally deaf. Yet these are the very ones who dare to set limits to the vision of those who, lacking a sense or two, have will, soul, passion, imagination. Faith is a mockery if it teaches us not that we may construct a world unspeakably more complete and beautiful than the material world. And I, too, may construct my better world, for I am a child of God, an inheritor of a fragment of the Mind that created all worlds.

Helen Keller, *The Open Door*

A Note on the Cover

The lovely sketch of Helen Keller that appears on the cover of *The New Outlook for the Blind* this month was done in 1916 by the American artist Onorio Ruotolo. At the same time that he executed this sketch and several others, Mr. Ruotolo also sculpted several heads and life masks of Miss Keller.

This sketch, along with several of the sculptures, was included in the book, *Ruotolo: Man and Artist* by Francis Winnar, which was published by the Liveright Publishing Corporation in 1949. The sketch is reprinted on the *Outlook* cover with the permission of the publisher and of the artist's widow, Mrs. Onario Ruotolo.

Helen Keller and the American Foundation for the Blind

M. ROBERT BARNETT

Mr. Barnett is executive director of the American Foundation for the Blind and the American Foundation for Overseas Blind.

One of Helen Keller's most endearing qualities—and she had many—was her curiosity. At times it could be almost childlike. She was forever examining art objects, wild animals, the faces of presidents, dogs, flowers, airplane tires, and what have you, with her hands. One of my favorite stories about her curiosity and the incidents it sometimes provoked took place in South Africa in 1951. One of the events staged in her honor was a demonstration of traditional rituals by a troop of tribal warriors. The warriors were got up in full tribal regalia which consisted of battle gear, exotic and elaborate head dress, and a rather scanty one-piece sarong-style animal skin. When these were described to Miss Keller, she expressed a wish to examine one. A warrior was brought to her and as she was examining his shoulder ornamentation, the fastener of the sarong came apart. The poor fellow found himself suddenly and completely exposed to the entire assembly. While she was not insensitive to the man's acute embarrassment, Miss Keller's own complete lack of it helped him to recover his poise and the audience its dignity.

I tell this story here not only because it is a charming one, but because I hope it conveys to readers the Helen Keller that we at the American Foundation for the Blind and the American Foundation for Overseas Blind were privileged to know. Not that all of the clichés that were quoted about her were hyperbole; there was something of the angelic about her. But she was also most human and down to earth—and delightfully so.

About Miss Keller's long affiliation with AFB and AFOB there has always been a great deal of interest and confusion. Since her death the interest has increased and we thought this memorial issue of the *Outlook* a unique opportunity to explain some of the details and highlights of her association with us.

Many of the people who helped found the American Braille Press (predecessor to AFOB) in 1915, and the American Foundation For the Blind in 1921 were friends or acquaintances of Helen Keller's. So, from the beginning, she took an interest in the work of the two organizations. By 1924, her enthusiasm for the work they were doing was such that she agreed to assist in their activities. In general, her work had two objectives: (1) to assist in the development of agencies for the blind at the state and local levels and in other countries; (2) to help the two organizations in fund raising. Many others were also involved in these tasks, but it is generally agreed that her efforts played a tremendous part in the success of the two ventures.

Miss Keller was not a trustee of either foundation. She was, rather, an advisor to the board and staff in matters of both public and professional policy. For example, it was she who persuaded AFB in 1945 to create the Helen Keller Committee for the Deaf-Blind. This in turn led to the creation

Miss Keller and Robert B. Irwin, first executive director of AFB, examine a touch-tuning radio especially designed for the blind which Miss Keller presented to the Foundation in 1937.

of a special staff within the Foundation to deal with the deaf-blind. Her status was that of an employee and she received a salary like other employees.

By chance rather than planning, many of Miss Keller's personal advisors were also connected in some way with AFB or AFOB. Many of the men she designated as personal trustees have been board members—i.e., the late Major M. C. Migel, the late William Ziegler, Jr., Jansen Noyes, Jr., Richard H. Migel, and James S. Adams.* Two long-time friends of Miss Keller, Katharine Cornell and Mrs. Nella Braddy Henney (author of the book *Anne Sullivan Macy*), have also acted as advisors to AFB and AFOB. Miss Cornell is on both the AFB and the AFOB boards and is honorary chairman of the national committee of AFOB's Helen Keller World Crusade for the Blind.

The fact that many of the same people were concerned with both Miss Keller's and the Foundation's affairs did make coordinating her personal and professional activities easier. And this was made even simpler several years ago when Miss Keller and her trustees asked me to manage the day-to-day affairs of her household, traveling, publishing, etc. Thus, the executive office secretarial staff was also closely involved in these details, attending to correspondence, appearances, public events, and financial record keeping. One secretary, Mrs. Evelyn Davidson Seide, was actually detached from the New York office for several years to work from Miss Keller's home. Other AFB employees who have devoted time to the myriad details of Miss Keller's activities include Mrs. Marta Andreotta, Mrs. Mary Gallagher, Mrs. Margaret O'Brien, Mrs. Clara Thompson and, most recently, Mrs. Barbara Shiflet.

In her later years, Miss Keller was particularly noted for her globe-circling tours, most of which were under the auspices of AFB and AFOB. Traveling with her was stimulating in more ways than one.

Like most of us, she could be unpredictable. Although her impulses often upset the best-laid plans, her genuineness afforded such amusement that any inconvenience she caused was easily overlooked. Eric Boulter, AFOB associate director, particularly enjoys telling about the first evening of Miss Keller's 1946 trip to Greece. She and Polly Thomson were supposed to attend a reception in their honor given by the royal family, the heads of state, and leaders of social welfare. However, during the trip, they became acquainted with some American servicemen who invited them to a party at a nearby Air Force Base. As far as Miss Keller was concerned, there was no choice; the official reception had to be cancelled and its erstwhile guest of honor danced for hours with servicemen who were lined up around the room waiting their turn!

By the way, that trip to Greece was what brought Mr. Boulter to AFOB eventually. At the time he was in Greece as a specialist in rehabilitation of the blind for the United Nations Relief and Rehabilitation Administration. So impressed with his competence and philosophy was Miss Keller that she persuaded him to let her speak to the AFOB directors about his joining the staff. As a result, he joined the Paris office in 1948 and came to New York in 1950.

Helen Keller and AFB executive director M. Robert Barnett examining some talking books about to be sent out.

Helen Keller with AFOB associate director Eric Boulter as they prepare to leave on one of her world tours.

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*Mr. Noyes, Mr. Migel, and Mr. Adams, who were her personal trustees at the time of her death, have been appointed the executors of her estate.

In 1951 I traveled to Florida by train with Miss Keller and Miss Thomson. We were going to Daytona Beach, where Miss Keller was to receive the Shotwell Award of the American Association of Workers for the Blind. During the day she insisted that the door to her compartment be left open and minded not at all the gazes of other passengers on their way to the dining car. While by no means a heavy drinker, she did on occasion enjoy a beer or highball. And a bottle of scotch, ice bucket, glasses, peanuts, and potato chips were there for all passersby to see. Hypocrites they were not. Neither Helen nor Polly would give in to the pleas of some of us that they be concealed. Lest our concern seem excessive, I add here that at one time a national temperance organization vented strong and public criticism of Miss Keller because a profile of her in a Texas newspaper included a passing reference to the fact that she occasionally took a drink.

When we arrived in Daytona Beach after that trip, both Miss Keller and Miss Thomson wished to spend the day resting in their room. Miss Thomson sent their dresses for that evening's reception and banquet out to be pressed. Late that afternoon, I checked to see that all was well and found them, attired only in foundation garments, somewhat frantic. It seemed that no one knew which hotel employee had taken the dresses and to which outside presser they had been taken! After telephone calls, the dresses were tracked down and delivered while dignitaries waited nervously in the corridor long past the time when the famous Miss Keller was supposed to appear. Those of us in the room were no less nervous. But Miss Keller, as we frantically zippered zippers, combed hair and matched accessories and handbags with outfits, was almost hysterical with laughter.

Helen Keller (with Polly Thomson) delivering her acceptance speech for the Shotwell Award which she received in Daytona, Beach, Florida in 1951.

I think that all of these stories illustrate another one of Helen Keller's qualities—her directness. It not only made for some most amusing situations; it was of immeasurable help when she was carrying out Foundation duties. During her trip to the Middle East for AFOB in 1952 Miss Keller was shown an Israeli village where all blind refugees had been settled. The well-meaning officials were obviously most proud of their accomplishment. Refusing to let the rather diplomatic nature of the occasion stand in her way, Miss Keller bluntly cut through all rationalizations and said it was wrong—and the families were shortly thereafter resettled throughout the country.

Another quality of Miss Keller's that these anecdotes make apparent was her complete simplicity. Asked by a reporter how many presidents she had met, she answered "I haven't counted them." Her answer to the often asked question, "What is the greatest need in the world?" was always one word, "Love."

For the Blind

VAN WYCK BROOKS

Van Wyck Brooks, the Pulitzer Prize-winning historian and critic, was a close friend of Helen Keller's and her long-time neighbor in Westport, Connecticut.

In 1917, after living at Wrentham for thirteen years, Helen and Anne Sullivan Macy sold the house there, and they bought a smaller house at Forest Hills, Long Island, from which they could reach New York in a few minutes on the train. They planted trees and vines about this dwelling, where a study was rigged up for Helen in the attic. John Macy was absent more and more—with John Reed in Europe some of the time—but Miss Polly Thomson had joined the household in 1914 as Mrs. Macy's assistant and secretary. She had come to America from Glasgow the previous year to visit one of her uncles who was living at Swampscott, and Helen taught here the manual alphabet at once. Quite as remarkable in her way as either of the others, she was to outlive Anne by many years,—replacing her as Helen Keller's alter ego—and meanwhile, with her aesthetic sense and her diplomatic and practical sense, she became at once an indispensable member of the trio. For the first time there was someone in the house who understood bank accounts and who could read time-tables and map out schedules.

For the rest, John Macy was sometimes there—difficult as his position was, as the object of an affection both real and divided—and there came many of his radical friends, John Reed, Carlo Tresca, Arturo Giovannitti and Big Bill Haywood. There came Margaret Sanger, too, and Flavio Venanzi, with whom Helen was studying Italian. Politics had always interested her; she had read every incoming President's message since the days when she was a schoolgirl preparing for college; and this interest had been so strong even when she was twelve years old that Michael Anagnos had been puzzled by it. When he asked her whether she was a Republican or a Democrat, she had replied, "I am on the fence. I must study civil government, political economy and philosophy before I jump." Later, after studying all these matters, she had become convinced of the rightness of the socialist point of view, and, regarding the "essence of government" as "public welfare," she was always to remain, substantially, of this opinion. She had burning memories of the East Side slums, which she had visited as a child with her teacher and Alexander Graham Bell, and she had seen as a grown woman the dreadful back alleys of Washington and Pittsburgh. Closely following the Lawrence strike, she had been all for the workers, believing that the plants should belong to the producers of the goods, and, concerned for the submerged tenth about whom she wrote an essay, she felt that socialism alone could solve these problems. She delighted in the victory of the Interna-

Helen Keller, at 21, with one of her earliest mentors, Alexander Graham Bell.

"For the Blind" from the book *Helen Keller: Sketch for a Portrait* by Van Wyck Brooks. Copyright, ©, 1954, 1956 by Van Wyck Brooks. Reprinted by permission of E. P. Dutton & Co., Inc.

tional Seamen's Union, correcting the brutalities that had been inflicted on the sailors, and she sympathized with John L. Lewis, rejoicing in the defiant skill with which he had mobilized the miners.

These were still the days of Debs, when the majority of imaginative minds were actively stirred on behalf of the underdog, before the terms "do-gooder," "world-improver," "reformer" and the like had become,—in the words of David Reisman—terms of contempt. Helen Keller could not share the fatalism of later times when the intellectuals felt with Robinson Jeffers that they were "all compelled, all unhappy, all helpless," and that the wish to "do good" was simply naive; for she had experienced in her own person the power of the will and she felt that to spread well-being was both feasible and right. All her life she grieved over the catastrophes that filled the news,—dust-storms in the Middle West, floods in Mississippi—and she instinctively hated the unjust and the cruel. She understood George Orwell's defence of the so-called "materialism" of the working classes, their realization that the belly comes before the soul, not in the scale of values but in the point of time; and with this understanding she wrote the essays in *Out of the Dark* that made her for a while almost a social outcast. She wrote that she had a red flag in her study, and, marching in suffrage parades, she shared the front page with baseball and the President's doings, accepting the notoriety and even happy in it when she felt that it brought socialism to people's attention. Naturally, the rumour went about that she was exploited by the "bolsheviks," for how could this "sweet girl graduate" who might have stepped out of a poem of Tennyson lend herself to the abhorrent cause of revolution? The respectable newspapers said that poor blind Helen Keller was being used by the socialists for the sake of her prestige and that, in any case, being both blind and deaf, she was especially liable to error. In point of fact, she was independent, for John Macy did not talk socialism as much as she wished him to do and Anne was not, at first, a socialist at all.

Following her convictions, Helen Keller advised college girls to study the problems of mill-hands and workers in mines and, generally, the living conditions in industrial cities, relating their knowledge of philosophy and history to the processes that were making history daily. When Dr. Fosdick, defending the workers, added that those at the top lacked imagination but were not "bad," she wrote in her journal presently, "I wonder! . . . I know some lovable personalities that walk serenely in the vineyards of abundance with no comprehension of economics." But she knew others who had seen and felt the wretched conditions of the toilers, yet clung "with hidebound selfishness" to things as they were; and, knowing this, she had been glad to write a preface for Giovannitti's poems, *Arrows in the Gale*. She wished to defend her friend and comrade, one of the leaders of the Lawrence strike, feeling that he was, like Shelley, a poet of revolt against cruelties that never should be borne. For her, Giovannitti symbolized "the struggle of a new world against the old world of customs blindly obeyed . . . The seeds of the socialist movement," she added, "are being scattered far and wide, and the power does not exist in the world which can prevent their germination." It was these beliefs of Helen Keller that caused her

Helen Keller and Polly Thomson on the front step of Arcan Ridge, their home in Westport, Connecticut.

Helen Keller with George Bernard Shaw and Lady Astor in 1932.

books to be publicly burned in front of the Berlin opera house in 1933, while Dr. Paul Goebbels addressed the students who piled them up with other books in the presence of forty thousand persons.

Helen Keller was well aware that poverty and ignorance are often the fundamental sources of blindness, and, in fighting for radical change in society, she was fighting also for the cause to which she was to devote the rest of her life. She regretted that she could not work for both the blind and the deaf,— and she regarded deafness as the worse misfortune; but, obliged as she was to confine herself to one of these causes alone, she had set to work years before to study it. She had gone in 1904 to the St. Louis exposition to appeal for the education of handicapped people; and, as she thought of the problem that blindness created, she grieved over the multiplicity of prints for the blind. What confusion it produced to have five kinds of raised print in all of which the Bible had appeared—Moon type and Boston Line Letter, New York Point, American braille and European braille! Knowing them all herself, she exclaimed, "A plague upon all these prints!" while she deplored the "American fever of invention," wishing there had been only European braille. For this was the most readily adaptable to many different languages, and even Greek could be embossed in it. Meanwhile, she realized what a burden were the blind to other people—feeling what a "stumbling-block" she was herself, "a handicap, a hindrance, a tremendous burden;" and she never tired of pointing out that the minds of the blind could be developed and that their hands could be trained for their own support. There were no hopeless blind, she said, among those who knew braille and who had some kind of work to do. One problem was the prevention of blindness among newly born children, caused by venereal diseases that were not openly discussed; and knowing that in two-fifths of cases blindness was preventable, she was determined to break this cowardly silence. In order to do so, she had written as early as 1907 an outspoken article for a woman's magazine.

Within a few years after she had served on a Massachusetts commission for the blind, similar commissions were established in thirty other states; and it was she who organized the great concert at the Metropolitan Opera House to raise funds for starting the American Foundation for the Blind. That was in 1921, and after that her chief life work was raising funds for the Foundation. In three years she addressed 250 meetings in churches, synagogues, town halls, women's clubs, travelling all over the country, holding out her tin cup, with little taste for the role of a dedicated beggar. It was not easy or pleasant to reiterate endlessly, in articles, messages, and letters, the needs of the blind, to explain these to the seeing and to explain as well the best ways of repairing broken lives. It required the utmost care and concentration, for she well knew that a single inept phrase might spoil the whole effect of a speech or a letter. She had, moreover, to avoid the platitudes that, as she was aware, bred irony and doubt. She was obliged to read, or to have read to her, material on the methods by which these problems were handled in England, Germany, Italy, and France, while she could scarcely struggle through the floods of mail that came to her from doctors, teachers and parents of handicapped children. Lobby-

Katharine Cornell and Helen Keller at the world premiere in 1954 of the film, "The Helen Keller Story."

Miss Keller examines a relief on an ancient tomb during a trip to Egypt.

ing in Washington, she walked through miles of corridors in the hope of capturing a senator who would champion the blind. More and more the afflicted and the crippled clung to Helen Keller, and, above all, the "loneliest people in the world," her phrase for the deaf-blind who "stared into the dark with nothing but the dark staring back" and whom she was not always able to reach and help.

From the time when she was a little girl, Helen Keller had seen herself, objectively, as a spokesman for the blind, and when, at eleven, she described in *St. Nicholas* how blind children wrote she had found herself instinctively thinking for them all. They had all kept their lines straight by writing over a grooved board, pressing the paper into the grooves, making the small letters in the grooves while they extended the capitals above and below. This objectivity, or this impersonality, explained why she herself was never spoiled, why, as Ralph Barton Perry put it, she was never "corrupted by kindness" and even ceased to think of her deprivations. Or, at least, as she wrote in one of her books, they no longer saddened her as they had saddened her once in moments of rebellion when she had sat at life's shut gate fighting down the passionate impulses of her nature. She had sometimes felt like a music-box with all the play shut up inside, and she had feared that her limitations unfitted her altogether for the world of men. But, having found her proper work, she asked for no other blessedness, and this enabled her to understand how work could rescue others from their "night of thwarted instincts and shackled ambitions." She had found too how naturally, on every plane of experience, caring for the lives of others enlarged one's own, whether it was Tommy Stringer's life or the life of the blind Texas girl or the life of the Polish boy in Paris. What could be found for each of them to do?

Helen Keller and Polly Thomson browsing at one of the bookstalls along the Seine during a trip to Paris.

The blind for her were a sort of confraternity and she had blind correspondents all over the world, Olga Skolodhovka, for instance, the Russian poet who was also deaf, and the deaf-blind Madame Berthe Galeron. Victor Hugo had written a preface for the poems of this French friend of hers whom he had called "La Grande Voyante." Meanwhile, it pleased Helen Keller to think of the other great exceptions of whom she wrote in her own preface to *A Challenge to Darkness*, the life-story of a French soldier, J. Georges Scapini, who had been blinded in the first world war. Determined, he said, to get out of life "accomplishment and happiness," he had become a member of the Chamber of Deputies, like the blind American Senator Gore or the blind Tennessean who had founded in London the Academy of Music for the Blind. This Dr. F. J. Campbell had educated there some of the best musicians in England, and, as a mountaineer, to show what the blind could do, he had climbed Mont Blanc on one of his vacations.

It relieved the terrors of blindness to think of its triumphs, and Helen Keller enumerated some of the famous blind like King John of Bohemia who fell fighting at Crécy. Another blind man, John de Trocznow, had led to victory the army of Hussites, and then there were all the blind minstrels and poets, from Homer and Ossian to Milton, and the Greek rhapsodists who recited heroic poems. The teacher of Cicero was blind, and so was the teacher of St. Jerome and the teacher of Confucius long before him. There was John Stanley, the blind composer of Handel's time, and Saunderson who detected with his finger a counterfeit coin that deceived a connoisseur's eye, Leonard Euler, the Swiss astronomer, and the blind postmaster-general of England who had first introduced the parcel post. The blind naturalist Huber had laid the foundations of modern apiarian science. Speaking of Thierry, the blind historian, Helen Keller might have referred to Francis Parkman as well and the American Prescott, who had cheered himself in his own blindness by drawing up in an essay a similar list. He had done this to celebrate the incorporation in 1830 of the New England Asylum for the Blind, and he had spoken of Malebranche who, to think intensely, had closed his shutters closely in the daytime. Prescott repeated the story of Democritus who was supposed to have put out his own eyes in order to philosophize the better, although it was also said that he preferred blindness to seeing how the wicked continued to thrive. Prescott, who was famous for his own feats of memorizing, observed that blindness favoured concentration of the mind, and, speaking again of the blind, he said their proverbial cheerfulness seemed to prove that deafness was a far more serious affliction. Helen Keller herself had found it so.

Miss Keller chatting with Nehru during her 1955 trip to India under the auspices of AFOB.

Prescott had known long before what few had been aware of, that the blind could be trained to be self-supporting, and Helen Keller, knowing this, was conscious of the sad results that sometimes came from dwelling on these great exceptions. It was true, there were many instances of blind historians, economists, statesmen, mathematicians, journalists, editors and teachers, but it required a fighting spirit and a forceful personality for a blind person to succeed in these difficult professions. What was more generally called for was to teach the blind to see with their hands as carpenters, wood-workers, weavers, chairmakers, masseurs, or as yacht-builders, road-builders, piano-tuners, tea-tasters, organists, or singers. But indeed there were countless lucrative outlets for them. Helen Keller, speaking as one who knew every step of the path, saw it as part of her task to stimulate them, to humanize, as far as she could, the conditions of their lives while kindling a creative sun amid their physical disasters.

The highest result of education is tolerance. Long ago men fought and died for their faith; but it took ages to teach them the other kind of courage—the courage to recognize the faiths of their brethren and their rights of conscience. Tolerance is the first principle of community; it is the spirit which conserves the best that all men think. No loss by flood and lightning, no destruction of cities and temples by the hostile forces of nature, has deprived man of so many noble lives and impulses as those which his intolerance has destroyed.

Helen Keller, *The Open Door*

The Heaviest Burden on the Blind

HELEN KELLER

This article by Helen Keller, adapted from an address she gave at the New York Association for the Blind, originally appeared in the first issue of the Outlook for the Blind *in April, 1907.*

It is a great pleasure to me to speak in New York about the blind. For New York is great because of the open hand with which it responds to the needs of the weak and the poor. The men and women for whom I speak are poor and weak in that they lack one of the chief weapons with which the human being fights his battle. But they must not on that account be sent to the rear. Much less must they be pensioned like disabled soldiers. They must be kept in the fight for their own sake, and for the sake of the strong. It is a blessing to the strong to give help to the weak. Otherwise there would be no excuse for having the poor always with us.

The help we give the unfortunate must be intelligent. Charity may flow freely and yet fail to touch the deserts of human life. Disorganized charity is creditable to the heart, but not to the mind. Pity and tears make poetry; but they do not raise model tenement houses, or keep children out of factories, or save the manhood of blind men. The heaviest burden on the blind is not blindness, but idleness, and they can be relieved of this greater burden.

Our work for the blind is practical. The Massachusetts Commission, your Association, and the New York Commission are placing it on a sincere basis.

The first task is to make a careful census of the blind, to find out how many there are, how old they are, what are their circumstances, when they lost their sight, and from what cause. Without such a census there can be no order in our work. In Massachusetts this task is nearly completed.

The next step is to awaken each town and city to a sense of its duty to the blind. For it is the community where the blind man lives that ultimately determines his success or his failure. The state can teach him to work, supply him with raw materials and capital to start his business. But his fellow-citizens must furnish the market for his products and give him the encouragement without which no blind man can make headway. They must do more than this, they must meet him with a sympathy that conforms to the dignity of his manhood and his capacity for service. Indeed, the community should regard it as a disgrace for the blind to beg on the street corner or receive unearned pensions.

It is not helpful, in the long run it is harmful, to buy worthless articles of the blind. For many years kind-hearted people have bought futile and childish things because the blind made them. Quantities of beadwork that can appeal to no eye, save the eye of pity, have passed as specimens of the work of the blind. If beadwork had been studied in the schools for the blind and supervised by competent seeing persons, it could have been made a profitable industry for the sightless. I have examined beautiful beadwork in the shops, purses, bags, belts, lamp shades, and dress trimmings, some of it very expensive, imported from

Katharine Cornell, Eric Boulter, Mrs. Boulter, and Nancy Hamilton, who produced and wrote the film The Helen Keller Story, *leaving Washington Cathedral after Miss Keller's funeral.*

France and Germany. Under proper supervision this beadwork could be made by the blind. This is only one example of the sort of manufacture that the blind may profitably engage in.

One of the principal objects of the movement which we ask you to help is to promote good workmanship among the sightless. In Boston, in a fashionable shopping district, the Massachusetts Commission has opened a salesroom where the best handicraft of all the sightless in the state may be exhibited and sold. There are hand-woven curtains, table covers, bedspreads, sofa pillows, linen suits, rugs; and the articles are of good design and workmanship.

People buy them, not out of pity for the maker, but out of admiration for the thing. Orders have already come from Minnesota, from England, from Egypt. So the blind of the New World have sent light into Egyptian darkness!

Miss Keller performing domestic chores in the kitchen of Arcan Ridge.

This shop is under the same roof with the salesroom of the Perkins Institution for the Blind. The old school and the new commission are working side by side. I desire to see similar cooperation between the New York Institution for the Blind and the New York Association. The true value of a school for the sightless is not merely to enlighten intellectual darkness, but to lend a hand to every movement in the interests of the blind. It is not enough that our blind children receive a common school education. They should do something well enough to become wage-earners. When they are properly educated, they desire to work more than they desire ease or entertainment. If some of the blind are ambitionless and lazy, the fault lies partly with those who have directed their education, partly with our indolent progenitors in the garden of Eden. All over the land the blind are stretching forth eager hands to the new tasks which shall soon be within their reach. They embrace labor gladly because they know it is strength.

One of our critics has suggested that we who call the blind forth to toil are as one who should overload a distabled horse and compel him to earn his oats. In the little village where I live, there was a lady so mistakenly kind to a pet horse that she never broke him to harness, and fed him twelve quarts of oats a day. The horse had to be shot. I am not afraid that we shall kill our blind with kindness. I am still less afraid that we shall break their backs.

Nay, I can tell you of blind men who of their own accord enter the sharp competition of business and put their hands zealously to the tools of trade. It is our part to train them in business, to teach them to use their tools skillfully. Before this Association was thought of, blind men had given examples of energy and industry; and with such examples shining in the dark other blind men will not be content to be numbered among those who will not or cannot carry burden on shoulder or tool in hand, those who know not the honor of hard-won independence.

The new movement for the blind rests on a foundation of common sense. It is not the baseless fabric of a sentimentalist's dream. We do not believe that the blind should be segregated from the seeing gathered together in a sort of Zion City, as has been done in Roumania and attempted in Iowa. We have no queen to preside over such a city. America is a democracy, a multimonarchy, and the city of the blind is everywhere. Each community should take care of its own blind, provide employment for them, and enable them to work side by side with the seeing. We do not expect to find among the blind a disproportionate number of geniuses. Education does not develop in them remarkable talent. Like the seeing man, the blind man may be a philosopher, a mathematician, a linguist, a seer, a poet, a prophet. But believe me, if the light of genius burns within him, it will burn despite his infirmity, and not because of it. The lack of one sense—or two—never helped a human being. We should be glad of the sixth or the sixteenth sense with which our friends and the newspaper reporters, more generous than nature, are wont to endow us. To paraphrase Mr. Kipling, we are not heroes, and we are not cowards, too. We are ordinary folk limited by an extraordinary incapacity. If we do not always succeed in our undertakings, even with assistance from friends, we console ourselves with the thought that in the vast company of the world's failures is many a sound pair of eyes!

I appeal to you, give the blind man the assistance that shall secure for him complete or partial independence. He is blind, and falters. Therefore go a little more than half way to meet him. Remember, however brave and self-reliant he is, he will always need a guiding hand in his.

Polly and Helen take in one of the local tourist attractions during a trip to the Middle East in 1951.

Security is mostly a superstition. It does not exist in nature, nor do the children of men as a whole experience it. God Himself is not secure, having given man dominion over His works! Avoiding danger is no safer in the long run than outright exposure. The fearful are caught as often as the bold. Faith alone defends. Life is either a daring adventure or nothing. To keep our faces toward change and behave like free spirits in the presence of fate is strength undefeatable.

Serious harm, I am afraid, has been wrought to our generation by fostering the idea that they would live secure in a permanent order of things. It has tended to weaken imagination and self-equipment and unfit them for independent steering of their destinies. Now they are staggered by apocalyptic events and wrecked illusions. They have expected stability and find none within themselves or in their universe. Before it is too late they must learn and teach others that only by brave acceptance of change and all-time crisis-ethics can they rise to the height of superlative responsibility.

Helen Keller, *The Open Door*

Why Men Need Woman Suffrage

HELEN KELLER

This article originally appeared in the October 17, 1915 edition of the New York Call, *a socialist paper.*

Many declare that the woman peril is at our door. I have no doubt that it is. Indeed, I suspect that it has already entered most households. Certainly a great number of men are facing it across the breakfast table. And no matter how deaf they pretend to be, they cannot help hearing it talk.

Women insist on their "divine rights," "immutable rights," "inalienable rights." These phrases are not so sensible as one might wish. When one comes to think of it, there are no such things as divine, immutable, or inalienable rights. Rights are things we get when we are strong enough to make good our claim to them. Men spent hundreds of years and did much hard fighting to get the rights they now call divine, immutable, and inalienable. Today women are demanding rights that tomorrow nobody will be foolhardy enough to question.

Anyone that reads intelligently knows that some of our old ideas are up a tree, and that traditions are scurrying away before the advance of their everlasting enemy, the questioning mind of a new age. It is time to take a good look at human affairs in the light of new conditions and new ideas, and the tradition that man is the natural master of the destiny of the race is one of the first to suffer investigation.

The dullest can see that a good many things are wrong with the world. It is old-fashioned, running into ruts. We lack intelligent direction and control. We are not getting the most out of our opportunities and advantages. We must make over the scheme of life, and new tools are needed for the work. Perhaps one of the chief reasons for the present chaotic condition of things is that the world has been trying to get along with only half of itself. Everywhere we see running to waste woman-force that should be utilized in making the world a more decent home for humanity. Let use see how the votes of women will help solve the problem of living wisely and well.

When women vote men will no longer be compelled to guess at their desires —and guess wrong. Women will be able to protect themselves from man-made laws that are antagonistic to their interests. Some persons like to imagine that man's chivalrous nature will constrain him to act humanely toward woman and protect her rights. Some men do protect some women. We demand that all women have the right to protect themselves and relieve man of his feudal responsibility.

Political power shapes the affairs of state and determines many of the everyday relations of human beings with one another. The citizen with a vote is master of his own destiny. Women without this power, and who do not happen

Eleanor Roosevelt, Helen Keller, and Katharine Cornell at a summer party at Miss Cornell's Martha's Vineyard, Massachusetts home.

"Why Men Need Woman Suffrage" is reprinted here by permission of International Publishers Co., Inc.

to have "natural protectors," are at the mercy of man-made laws. And experience shows that these laws are often unjust to them. Legislation made to protect women who have fathers and husbands to care for them, does not protect working women whose only defenders are the state's policemen.

The wages of women in some states belong to their fathers or their husbands. They cannot hold property. In parts of this enlightened democracy of men the father is the sole owner of the child. I believe he can even will away the unborn babies. Legislation concerning the age of consent is another proof that the voice of woman is mute in the halls of the lawmakers. Regulations affecting laboring women prove that men are too busy to protect their "natural wards."

Economic urgencies have driven women to demand the vote. To a large number of women is entrusted the vitally important public function of training all childhood. Yet it is frequently impossible for teachers to support themselves decently on their wages. What redress have these overworked, underpaid women without the vote? They count for nothing politically.

An organization of women recently wanted to obtain a welfare measure from a Legislature in New York. A petition signed by 5,000 women was placed before the chairman of a committee that was to report on the bill. He said it was a good bill and ought to pass. After the women had waited a reasonable time, they sent up a request to know what had become of the bill. The chairman said he did not know anything about it. He was remined of the petition that had been brought to him signed by 5,000 women. "Oh," replied the chairman, "a petition signed by 5,000 women is not worth the paper it is written on. Get five men to sign and we'll do something about it." That is one reason we demand the vote—we want 5,000 women to count for more than five men.

Helen Keller and M. Robert Barnett, AFB executive director, in a photograph taken in 1961.

A majority of women that need the vote are wage-earners. A tremendous change has taken place in the industrial world since power machines took the place of hand tools. Men and women have been compelled to adjust themselves to a new system of production and distribution. The machine has been used to exploit the labor of both men and women as it was never exploited before. In the terrific struggle for existence that has resulted from this change women and children suffer even more than men. Indeed, economic pressure drives many women to market their sex.

Yet women have nothing to say about conditions under which they live and toil. Helpless, unheeded, they must endure hardships that lead to misery and degradation. They may not lift a hand to defend themselves against cruel, crippling processes that stunt the body and brain and bring on early death or premature old age.

Working men suffer from the helplessness of working women. They must compete in the same offices and factories with women who are unable to protect themselves with proper laws. They must compete with women who work in unsanitary rooms called homes, work by dim lamps in the night, rocking a cradle with one foot. It is to the interest of all workers to end this stupid, one-sided, one-power arrangement and have suffrage for all.

The laws made by men rule the minds as well as the bodies of women. The man-managed state so conducts its schools that the ideals of women are warped to hideous shapes. Governments and schools engender and nourish a militant public opinion that makes war always possible. Man-written history, fiction, and poetry glorify war. Love of country is turned into patriotism which suggest drums, flags, and young men eager to give their lives to the rulers of the nation. There will continue to be wars so long as such ideas prevail.

Women know the cost of human life in terms of suffering and sacrifice as men can never know it. I believe women would use the ballot to prevent war and to destroy the ideas that make war possible. In spite of an education that has taught them to glorify the military element in their ideals of manhood, they will wake to the realization that he loves his country best who lives for it and serves it faithfully. They will teach children to honor the heroes of peace above the heroes of war.

Women are even now more active in working for social legislation and laws affecting the schools, the milk supply, and the quality of food than are the men who have the votes. Fundamentally, woman is a more social being than man. She is concerned with the whole family, while man is more individualistic. Social consciousness is not so strong in him. Many questions can be solved only with the help of woman's social experience—questions of the safety of women in their work, the rights of little children.

Yet her peculiar knowledge and abilities are made the basis of arguments against giving women the vote. It is indisputably true that woman is constituted for the purposes of maternity. So is man constituted for the purposes of paternity. But no one seems to think that incapacitates him for citizenship. If there is a fundamental difference between man and woman, far be it from me to deny that it exists. It is all the more reason why her side should be heard.

For my part, I should think that man's chivalrous nature would cause him to emancipate the weaker half of the race. Indeed, it seems strange that when he was getting the suffrage for himself it did not occur to him to divide up with his beloved partner. Looking closer, I almost detect a suspicion of tyranny in his attitude toward her on the suffrage question. And can it be that this tyranny wears the mask of chivalry? Please do not misunderstand me. I am not disparaging chivalry. It is a very fine thing—what there is of it. The trouble is, there is not enough to go around. Nearly all the opportunities, educational and political, that woman has acquired have been gained by a march of conquest with a skirmish at every post.

So since masculine chivalry has failed us we must hustle a bit and see what we can do for ourselves—and the men who need our suffrage. First of all, we must organize. We must make ourselves so aggressive a political factor that our natural protectors can no longer deny us a voice in directing and shaping the laws under which we must live.

We shall not see the end of capitalism and the triumph of democracy until men and women work together in the solving of their political, social and economic problems. I realize that the vote is only one of many weapons in our fight for the freedom of all. But every means is precious and, equipped with the vote, men and women together will hasten the day when the age-long dream of liberty, equality and brotherhood shall be realized upon earth.

On Her Deprivations

HELEN KELLER

These words of Miss Keller's are from her book, The Open Door, *a treasury of her philosophical reflections.*

It is seldom now that I think of my deprivations, and they never sadden me as they once did when I had bitter moments of rebellion because I must sit at life's shut gate and fight down the passionate impulses of my nature. I know that a great many people pity me because I can show so little visible proof of living. They are often supercilious and sometimes contemptuous of the "poor thing" who is so shut out from everything they know. Meeting me in one of the noisy arenas of commerce, they are as startled as if they had encountered a ghost on Broadway. At such times I smile inwardly and gather my dreams about me. My reason for living would be lost if the reality they think they see did not hide her cruel face from me under a veil of pleasant illusions—if they are illusions. One will not quarrel over definitions if one has the substance, and I feel that, since I have found existence rich in happiness and interest, I have the substance.

The seeing are apt to conclude that the world of the blind—and especially the deaf-blind person—is quite unlike the sunlit, blooming world they know, that his feelings and sensations are essentially different from their own, and that his mental consciousness is fundamentally affected by his infirmities. They blunder still further, and imagine that he is shut out from all beauty of color, music, and shape. They need to be told over and over innumerable times that the elements of beauty, order, form, and proportion are tangible for the blind, and that beauty and rhythm are the result of a spiritual law deeper than sense. Yet how many people with eyes do take this truth to heart? How many of them take the trouble to ascertain for themselves the fact that the deaf-blind inherit their brain from a seeing and hearing race fitted for five senses, and the spirit fills the silent darkness with its own sunshine and harmony?

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A Psychologist Looks at the Issue of Public vs. Residential School Placement for the Blind

CONSTANCE D. AVERY

Mrs. Avery is a school psychologist for the Connecticut Institute for the Blind, Hartford.

The issue of whether to place youngsters in a public school or a residential school program has been a controversial and greatly debated one for many years. There are those who have taken a very active stand in favor of public school attendance for all blind children while there are those who feel that the residential school is better qualified to handle their academic training, social development, recreational activities, and physical and manual activities. There are several issues to be considered and it is quite difficult to take a categorical stand in favor of one or the other. The factors involved in the decision of public versus residential school revolve around the individual child's intellectual level, emotional maturity, social adaptability, and the presence of additional handicaps. There are times when a child would be equally well-placed in either a public or a residential school and there are circumstances that are more appropriate for placement in one in preference to the other.

How the Public School Educates the Blind Child

☐ In some public schools the blind child is absorbed into the regular classroom. He is provided with braille materials for the blind with no useful vision or large print materials for the legally blind with limited vision. In some public schools, he remains in the same classroom and grade year after year because he does not advance at the same rate of speed as the sighted children in the same grade. The sighted children are promoted while he remains. It has not been unusual for a blind child to repeat first grade, two, three, or even four times, because his progress was measured against that of a sighted child of comparable grade.

Time spent with itinerant teachers varies

In elementary school, he may be visited by an itinerant (traveling) teacher, trained in the special techniques of teaching the blind, on a regular daily basis for a half hour to an hour. Sometimes he is seen only once a week because of the large area the itinerant teacher has to cover, and in some instances only once or twice a month because of the scarcity of itinerant teachers. The itinerant teacher uses braille textbooks and supplies the student with raised maps, diagrams, records, and tapes as teaching aids. After his session with the itinerant teacher he is again absorbed into the regular classroom with a teacher who is not usually trained in the special teaching methodology for the blind.

There are also difficulties in obtaining large print materials for all academic subjects in public schools. Sometimes it is the teacher who must have the foresight to prepare separate materials for the visually limited student ahead of time, so that he will have his own materials to use when the other students are using regular print books, the blackboard, or mimeographed materials.

Certain unusual communities have their own teacher for the blind with a resource room especially equipped with materials for teaching the blind within the school. The blind child meets with this resource teacher for regular periods during the day. The remainder of the day he attends the regular classroom, using braille or large print materials.

Some "Advantages" of Public Schools Mixed Blessings

☐ In public school the blind child tends to get some disconcerting "advantages." Different requirements and expectations and in general lesser degrees of performance are expected from the blind child integrated into a sighted classroom. Many teachers, used to teaching the sighted, do not appreciate the differences in the level of academic and physical performance that can be expected of the blind. As a result, they have a lower level of expectation for them and are satisfied with minimal performance and small accomplishments.

Besides the greater tendency for permissiveness towards the blind student in the public school, there exists an attitude of sympathy that is psychologically detrimental to them. There are also many people not familiar with the capacities of the blind who have unrealistically high expectations for them and are over-critical of their slowness in such things as reading, mobility, and motor coordination.

How the Residential School Educates the Blind Child

☐ At a residential school, the blind child is placed at the grade or group level at which he is currently functioning. Residential schools usually have fewer pupils in each classroom than public schools. They have an academic curriculum geared to the needs of blind children and are equipped with braille materials, large print texts, and special equipment, such as slate and stylus, cube slates, raised maps, and charts as aids for teaching the blind. The blind student's other qualities—intellectual level, emotional maturity, and social adaptability—are also considered in his grade placement. His academic standing changes according to his progress. There is no automatic promotion from one year to the next. In a residential school, the academic environment is just one part of the day's activities. The children have an all encompassing program geared to their needs. There are extra-curricular activities after school, sports, recreational programs, individual religious instruction, scout programs. Dormitory living, which provides opportunity for social interaction with other blind children of the same age and social maturity, is an important part of residential school life. It is a live-in social experience as well as an academic one.

It is the rare public school system that has special library facilities for the blind, whereas this is an essential part of a residential school program. The blind child in a public school is denied the advantages of large collections of braille and large print materials, as well as a source of auditory and tactile academic aids.

Paucity of electives in residential schools

Because of the greater number of pupils there is a wider scope of academic electives in high school than can be provided in a residential school. There is also a greater choice of language than the single foreign language offered in many schools for the blind. There are other electives available to the high school student, but the blind student usually cannot take advantage of many of them such as bookkeeping and shorthand.

One argument states that the blind should be educated with sighted students so that they may be treated as normally as possible. However, in the process of being treated "normally" in a public school setting the particular limitations of the blind are more likely denied than recognized, accepted, and respected in drawing up an academic curriculum. If blind persons must compete with sighted people after graduation, as residential and public school personnel both recognize, they should be educated and prepared in the best manner available. This means taking into consideration their limitations, while still preparing them to compete vocationally in a sighted world. It must be remembered, when exposing the blind to the sighted world of a public school setting, it is the needs of the majority, the sighted, who are considered. The best preparation for a recognizedly different population is a special approach and individualized facilities that will still achieve the end result of a thorough education.

Few services for multi-handicapped blind in public schools

There are practically no services available for the multi-handicapped blind child in the present public school curriculum. Thus, the mentally retarded blind, the deaf-blind, the organically brain-damaged blind, and the psychologically disturbed blind are relatively neglected in the public schools, if they are allowed to attend at all.

Due to the limited number of blind children, there are limited facilities for manual and physical activities in a public school setting. Blind children in public schools most often do without physical education, sports, industrial arts, metal, electrical, and woodworking shop, and art instruction because there are not enough of them to warrant the facilities and special teaching methods required. The blind child may go to public school for his academic work, but he is provided with little or no exposure to the supplementary activities that are considered a requisite part of a well-rounded school program for the sighted. The blind child is supposedly "absorbed" within a regular sighted gymnastic program. On investigation, however, he remains on the sidelines and is not involved in the entire gymnastic program. The blind child has to adapt himself as best he can to the existing facilities geared to the sighted or be eliminated from playground, physical, and recreational activities altogether.

Within the school curriculum there are rarely special braille music programs. Public school teachers are not familiar with braille music so the blind cannot be taught a musical instrument within the school setting. Art is not adapted for a blind child and so he is excluded from an arts and crafts program. Dramatic activities and scientific field trips are additional activities from which he is excluded. Nor are courses in mobility training customarily available within public schools.

Special programs in residential schools

Residential schools have playground activities geared to the blind student, and gymnasium facilities and music, art, and crafts programs that are adapted and taught with special attention to the limitations of the students. There are shop programs, that may include cabinetmaking, chair caning, metal work, and electrical maintenance and repair, available under the supervision of manual arts instructors trained in teaching the blind. Many residential schools have programs in ceramics and piano tuning, that are not available in public school. The public school depends on outside agencies for services that are usually considered an integral part of residential school services, such as medical services, readers, and mobility instruction.

Social integration limited in residential schools

Most residential schools afford only limited interaction between the blind students at school and sighted population in public school. Some residential schools make the attempt to bring blind and sighted groups together. Sighted scout troops and 4-H groups are invited to have joint sessions with the blind.

It is very difficult to arrange integrated dances for blind and sighted groups, however, because sighted teenagers are not anxious to attend. Thus the blind are denied extensive socializing with sighted peers. Both blind and sighted educators working with the blind recognize that no matter how the blind try to rationalize it and how charitable the sighted try to be, the blind child is different from the sighted. Some blind persons make use of mannerisms, such as poking fingers in their eyes and rocking back and forth, making them appear even more different and strange to the sighted.

Is the blind child accepted in a public school?

The blind child has great expectations when he goes to public school that he will be accepted on an equal basis with the sighted. He imagines that he will be welcomed as "one of the group" and absorbed into the social milieu like a sighted person. Unfortunately the sighted in public school do not mingle with a blind person readily or comfortably. The blind student's differences are easily recognized. The sighted child, who in the beginning might enjoy the novelty of guiding the blind person to class, eventually rebels against this imposition on his time and freedom. The blind student, no matter how pleasing and mobile, is still recognized as blind. He is accepted and integrated in a limited fashion within the sighted regime of a public school. Unfortunately, after a blind child begins public school, he and his family cannot easily admit that he is not faring as well as expected. The family becomes defensive because the child has been put in public school with great expectations. The parents defend their decision and are committed to saying that the child is doing well socially.

The blind child in both public and residential school is usually not afforded sufficient training in the skills of grooming, dressing, and eating, that are taken for granted as social amenities learned by the sighted before entering school. The physical appearance of a blind person who is not given special training in good grooming, dressing, and eating, is labeled as strange. Public schools do not attempt to train the blind in daily living skills. Residential schools make an effort to give this training, although many are admittedly weak in teaching these basic skills.

A great concern of residential school students is that they have no one with whom to socialize on weekends and during the summer, when school is out. Their blind companions at school come from different parts of the state and are difficult to contact or visit with when school is over. The blind are lonely on weekends and during the summer recess at home. Not being absorbed into their sighted neighborhood through attending a school in the community, they lack contact with their sighted peers, and there are few or no blind friends nearby with whom to socialize. Public school attendance enables the blind to make contact with children in their own communities with whom they can become better acquainted after school hours.

Blind students profit socially from public high schools

☐ Blind students appear to do better at public high school than they do at public elementary school. They profit more socially from the mixed milieu of sighted and blind since the sighted population is older and more sophisticated. At the elementary and junior high level, youngsters tend to discriminate on the basis of superficialities, such as a person's comeliness, the intactness of his physical faculties, whether his dress is fashionable, and whether he is "like everybody else." At the high school and, particularly, at the college level the blind student's sighted peers are better able to accept him on the basis of his character and personality assets, his academic achievement, and his vocational direction rather than on the basis of his physical appearance and physical limitations. The real social integration of the blind and sighted probably comes after they have finished their academic training and work together vocationally and professionally. The great equalizer of acceptance is more apt to be work performance than physical appearance or physical limitations. Vocational efficiency and productivity become the measure of a person's value.

There are many issues to be considered and several problems to be resolved to effect better solutions for the training of the blind in both residential and public schools. Both have advantages and special disadvantages for the academic training, social interaction, recreational, physical, and manual arts activities that are part of a total educational background. Part of the solution for bettering the education and training of the blind child is for public and residential schools to work closer together to incorporate the advantages of each within the regime of the other, while still recognizing the special attributes and advantages of each.

Residential school should offer more electives

☐ The residential schools could profit from incorporating a wider scope of academic electives for their students including a wider choice of languages. They could allow their students greater social opportunities, by offering more activities whereby sighted groups attend functions at the residential school or residential students attend integrated school dances and community activities. The child in a residential school should be afforded more social activities in his own community. He should be encouraged to join local social and recreational organizations and not to confine his socializing to the residential school setting alone. Community organizations such as the YMCA, community centers, and church groups should afford recreational facilities for the blind so that the blind in both residential and public schools may have programs geared to their limitations as well as integrated social, physical, and recreational activities with the sighted, where this is feasible.

Public schools should be more flexible with blind students.

The public school needs to take into consideration not only the chronological age of the blind student in grade or group placement, but also the child's intellectual level, emotional maturity, and social adaptability. The public school should attempt a more flexible program of promotion for the blind student, so that he is carefully moved in academic standing according to his progress. The public school could profit from the advantages afforded by the residential school's smaller classes. Most public schools need to enlarge their supplies of braille materials, large print texts, and special equipment, such as the auditory and tactile academic aids that are considered necessary adjuncts to a school program. Public schools must consider the implementation of special facilities and teaching methods for extra-curricular activities. Sports programs, physical education facilities, industrial arts programs, metal, electrical, woodworking shop, art instruction, music braille programs, arts and crafts, dramatics, and scientific field trips should be provided for the blind in a public school setting. The public school needs within its program integrated services that include medical services, readers for the blind, and mobility instruction. Both residential and public schools need increased emphasis on special training for the blind in the social amenities of grooming, dressing, and eating skills.

The public school could profit from a public information program designed to help their sighted students understand the needs and limitations of blind students as well as their similarities to the sighted, so that the blind can be better accepted at all education levels.

Competition Between Public and Residential Schools Must Be Eliminated

☐ It is most important that the severe competition and rivalry that currently exists between many public and residential schools be eliminated in the interests of what is best for the blind child rather than on the basis of chauvinistic protection of a particular regime. Thus, if a blind child does not fare well in public school and it is more appropriate for him to return to residential school, it should not be interpreted as a loss of face to the child and his parents and a failure for the integrated public school program. This will make it difficult for the child's parents to countenance returning him to a residental school. The residential school should not guard its territory so zealously that, if a residential child shows sufficient intellectual potential and social adaptability as well as no formidable additional handicaps, it can relinquish him and allow him to continue his education within a public school setting.

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The Unhelped Blind

Society still does too little for the disabled and the blind; and much of what is done, this blind author argues, is misguided.

HARVEY MORRIS

Mr. Morris is at present writing an autobiography with particular reference to the position of the disabled in society. He was educated at the Royal College of Music for the Blind and has been a professional pianist.

Time and time again we are told how well the disabled have been helped to readjust to their position and how they can hold their heads up high and compete with the rest of society. Being blind myself and knowing many other disabled people intimately, I can say this is complete nonsense. The plight of many of them stems from the notion that the severely disabled can compete on equal terms with their able-bodied fellows, and from the obsessive preoccupation (among welfare workers and the disabled themselves) with attaining so-called normality.

Obsessive preoccupation with normality

Any disabled people who work are encouraged to believe that they have solved their problem. But they have not. Professional social welfare workers may say, "We must help the disabled to help themselves"; but it does not work out in practice. Why not? The handicapped are constantly told that their chief aim in life should be this striving to achieve "normality." But a normal man is one who has good physical health and no major disability. Therefore, a man who states that he has one arm, and one leg, and is blind, but asserts that he is quite normal is hardly facing the truth about himself.

Abnormality Carries a Stigma

☐ The word "abnormality" carries a stigma. Consider the attitude of society towards the mentally handicapped. Again, people who are deaf, or stutter, are often victims of callous ridicule. Those whose disabilities do not make them figures of fun have to endure an attitude of patronizing charity and condescension instead. It is little wonder then that many disabled people are reluctant to acknowledge being abnormal.

I don't, of course, suggest they are abnormal in their aspirations and desires. A blind and deaf man still has his sexual instinct, his desire for security and his desire for independence. But even if this man has great intellectual powers, no one but a fool would suggest that he could occupy a normally competitive role in society. So it is important to distinguish between those features of a disability which make a man abnormal from those which do not.

Distinguishing between features of a disability which make a man abnormal from those which do not

As a blind man, the simple fact that I cannot drive a car puts me immediately at a tremendous disadvantage. In lodgings a landlady will often make no special provision for a blind man, such as leaving the furniture always in the same place. If a blind person works in open industry (as some do), there are problems of environment. If there is a lot of noise where he is working,

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he is more or less completely isolated and disorientated and the nervous strain to which he is thus subjected can be fantastic. The disabled can be pressured into a situation which is unhuman and cruel, in order to perpetuate the phony notion that handicapped people are normal and can compete on level terms.

The attitude of many of the officials who have the controlling influence over the disabled is such that, even in a highly automated society, they would happily urge them to go daily to a factory where they would all pull on a rope in order to operate a mechanism, the working of which made not the slightest difference to economic production, but which would measure their effort. This would fulfill the apparently aching desire of these officials to condition their charges into believing that they were doing a useful job of work.

Disabled not expected to ask for normal rewards

Yet in wages the disabled are not expected to ask for normal rewards. Many years ago I worked as a self-employed piano tuner for the local Institute for the Blind, which had a contract with the local education authority for tuning school pianos. At that time the price paid per piano was 4s 9d. I decided that as a highly skilled man I was not prepared to accept this, so I approached the head of the institute urging that the price should be raised. I was discouraged with the caution that "we might lose the contract." Another blind man working on the same contract agreed with me and I informed the head of the institute that, if they were not prepared to raise the price, we were quite prepared to lose the contract.

This meant tuning 120 pianos four times a year, but we had to use public transport. I imagine most non-disabled people would laugh at the idea of trying to run a piano-tuning business without their own car. One blind friend of mine has walked as many as 15 miles in one day as a piano tuner. (In Russia all transport is free to the disabled, including taxis.)

Remploy is an organization which exits to find employment for the disabled, and many Remploy workers even today earn only about £9 10s a week, and are supposed to feel grateful and proud of the fact that they are doing a job of any sort.

Misconceptions About Disability Benefits

☐ There are many misconceptions about the supposed benefits received by disabled people. A woman once told me that it was all right for me because I "did not need to work if I did not want to." For the blind, perhaps one of the most common errors is the idea that St. Dunstan's looks after the interests of all blind people in Britain. This is not so. St. Dunstan's looks only after the interests of those who were blinded on active service or when making a contribution to the war effort. If you are seriously disabled on active war service, your economic position will not be too bad. You will get a pension commensurate with your rank in the services. If you are blind, St. Dunstan's will pay your house mortgage if you have one; you will be provided with a telephone; and if you need a car, this will be at least maintained for you, or in some cases, actually provided. If you have the ability and are keen to start up in business on your own account you will be helped in this also. It is right that these people should be helped to be economically and socially independent, as the disabled are always being told they should be. But what about the non-war disabled? If A is totally blind and B is totally blind, it is surely of no importance whatsoever how their disability was brought about in considering how they should be helped.

Have you ever paused to consider how it would affect your life if you were to become suddenly blind tomorrow? Any letter written to you by sighted friends or by businesses would have to be read to you by someone else, however personal the contents. If you are working age, the jobs available as a blind person are extremely restricted. This is of fundamental importance because it affects what you can pay for those other services that you now find you need—for example, I myself have to pay for domestic help. Most non-war disabled people cannot afford these services, which leads to loss of independence.

Nor does the training of welfare workers for the blind seem adequate. Most seem unable to advise one about what facilities are available and how to obtain them, or even where to look for appropriate help. I have never met among the welfare workers anyone with whom I could form anything like the relationships I have enjoyed with sighted friends who have had no training whatsoever in blind welfare.

A disability may be incurable but povertv is not

What then should be society's first major step in solving the problem of the disabled? It should be to give all seriously disabled (and here I include widows, unmarried mothers, and various other categories) an unconditional pension. The disability may be incurable, but the poverty is not. I am not airing any personal grievance because I happen to be earning a good living. But I think that in considering another person's situation, the all-important question to ask is: What would I want for myself in their place?

Help given should be unconditional

The importance lies in the unconditional nature of the help given. For instance, a blind man recently applied for a railway travel voucher to travel from the north of England to London on business. A blind person may travel, as the official document puts it, "with an attendant" for one fare, but if he wishes to travel alone no concession is made. This man was told that "too many people had been using the voucher to go on holiday." But it is probable that, if blind people were using the vouchers like this, the alternative was for them to have no holiday. The conditions here, as often, discriminate against the people in most need of help. And let us honestly face the fact that, in a system which if full of tiresome anomalies, not all officials are kindly. Many enjoy exercising the powers of veto which the present system confers on them. This all takes us back to the economic situation. An unconditional pension would be better than numerable vouchers.

The Key Word is Compassion

☐ In society's attitude towards its less fortunate members, the key word should be "compassion." By helping the disabled, society is in fact helping itself because, unfortunately, thousands of people become disabled from one cause or another every year.

Current Literature

A Feeling for Nature, *Rehabilitation Record* (Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402), Vol. 9, No. 1, January-February 1968, p. 20-21. A short report on the Roaring Fork Braille Trail near Aspen, Colorado. This nature trail covers an area roughly the size of a city block and has been designed for use by both the blind and the sighted.

In Defiance of Darkness, by Josephine C. Walker. V.F.W. (Veterans of Foreign Wars Magazine, Broadway at 34th Street, Kansas City, Missouri 64111), Vol. 55, No. 2, October 1967, p. 30-31, 48-49. Story of The Seeing Eye, Inc. in Morristown, New Jersey, describing the temperamental characteristics and the training required for both the dog guide and his prospective master.

Techniques with Tangibles; A Manual for Teaching the Blind, by Wilber H. Fulker and Mary Fulker. Charles C Thomas (301-327 East Lawrence Avenue, Springfield, Illinois 62703), 1968, 72p. $5.75. A manual of tangible apparatus useful for academic courses from elementary school through the high school years. Some of the instruments can be home-made, others are commercial products.

Patterns of Change in Disturbed Blind Children in Residential Treatment,. by John H. Ross, Bernard B. Braen and Ruth Chaput. *Children* (Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402), Vol. 14, No. 6, November-December 1967, p. 217-222. Report on an educational therapeutic program developed by the authors for the rehabilitation of institutionalized severely disturbed blind children. The experimental unit has been in existence for over four years. In the near future, it will become the Fairmount Institute of the Division of Child Psychiatry of the State University of New York, Upstate Medical Center, Syracuse. Its services will be expanded to include sighted as well as blind children.

Do It Yourself Anglers. *St. Dunstan's Review* (St. Dunstan's, 191 Marylebone Road, London, N. W. 1, England), Vol. 52, No. 583, February 1968, p. 2, 22-24. St. Dunstaners Tom Daborn and John Pointon recommend rod making as a hobby for blind men interested in fishing.

Blind Man's Brush, *St. Dunstan's Review* (see address above), Vol. 52, No. 583, February 1968, p. 4-6. The special techniques and equipment used by Gordon Stent, a blind artist.

Environment-Study Programme for the Multiply Handicapped Blind Child, by Mary H. Bonham. *The Teacher of the Blind* (Royal School for the Blind, Church Road North, Wavertree, Liverpool 15, England), Vol. 56, No. 2, January 1968, p. 50-54. Outline of a two-year educational program developed at the Condover Hall School to bring the outside world of normality within the ken of blind pupils who live in a special residential environment.

M. M. R.

News in Brief

■ Vito A. Proscia has been appointed director of the Center for Sensory Aids Evaluation and Development at the Massachusetts Institute of Technology, Cambridge, succeeding the late John K. Dupress, first director of the Center.

Mr. Proscia is a graduate of the New York Institute for the Blind, received a B.S. degree in physics from the City College of New York, and an M.S. in electrical engineering from Columbia University. He also pursued doctoral level studies at the Brooklyn Polytechnic Institute. Prior to joining the Center, Mr. Proscia was on the staffs of the Grumman Aircraft Engineering Corporation, the Fairchild-Stratos Corporation, and the MITRE Corporation.

■ Dr. Gordon B. Connor, director of rehabilitation services for Morgan Memorial, Inc., Boston, has been elected president of the New England chapter of the American Association of Workers for the Blind.

Other officers elected at the chapter organizational meeting in Boston were Mrs. Helen Worden, executive director of the Rhode Island Association for the Blind, president-elect; Paul Rourke, chief of vocational rehabilitation services for Maine Eye Care and Special Services, treasurer; and Jeanne Kenney, home teacher for the Massachusetts Commission for the Blind, secretary.

■ A conference on Parameters of Posture and Mobility in the Blind will be held at the Illinois Visually Handicapped Institute October 14 and 15, 1968. Through lectures, workshops, panels, and demonstrations, the conference will explore newer philosophical, experimental, and clinical concepts in the diagnosis and treatment of the blind and blind multiply handicapped. Among the specific topics that will be discussed are the Dolman—Delcato School of Therapy, adaptation of the Montessori method of the multi-handicapped child, postural reflexes, kinesthetic boundaries in art, and body image reinforcement.

A fee of $25.00, which covers registration, lodging, and meals, will be charged. Registration is limited. For further information, write to Thomas J. Murphy, director, P.P.M.B. Conference, Illinois Visually Handicapped Institute, 1151 South Wood Street, Chicago, Illinois 60612.

■ Helen Keller will be honored in *Dialogue,* the recorded magazine for the blind, with the first appearance of that publication in braille. The braille edition of *Dialogue,* which will begin with the winter issue, has been designed especially for the deaf-blind.

All of the magazine, except items involving sound demonstrations, will be contained in the braille edition. *Dialogue* editor-in-chief Don Nold hopes that "some of the authors and poets among the blind-deaf will compete in our literary contests." He has also made it clear that "although the main purpose of a braille edition is for the deaf-blind, those who prefer braille to taking books will also be served."

Both disc and braille editions will be available from regional libraries.

■ Recording for the Blind, Inc. has announced that it is no longer recording educational books on discs. All recording is now on tape.

In announcing the new policy, Don Staley, national director of the organization, said that about 80 percent of users employ tape recorders in their studies.

■ Mrs. Patricia S. Smith, managing editor of *The New Outlook,* has been named director of the Information Department of the American Foundation for the Blind, succeeding Daniel O'Connor who has joined the Social and Rehabilitation Service of the U.S. Department of Health, Education, and Welfare as a public information officer.

As director of the Information Department, Mrs. Smith, who will continue as managing editor of the *Outlook,* will administer the four divisions within the department—library, public education, publications, and record center.

Mrs. Smith, a graduate of Cornell College, Mount Vernon, Iowa, joined AFB as director of the Publications Division in October 1965. Prior to that, she had served on the editorial and public relations staffs of the American Academy of Pediatrics, the American Hospital Association, and the American Medical Association.

■ Mrs. Frances W. Wiesenfeld has joined the staff of the American Foundation for Overseas Blind as a special education consultant in Ceylon. During her two-year assignment, Mrs. Wiesenfeld will continue and expand the work done by Dr. Randall K. Harley, who has just concluded a year in Ceylon during which he organized and directed a new department for training teachers of blind children and initiated preparations for the enrollment of blind children in public schools.

Dr. Harley is returning to George Peabody College for Teachers, from which he had taken a year's leave of absence to serve as an AFOB consultant.

Prior to joining AFOB, Mrs. Weisenfeld served as a resource teacher for the visually handicapped with the Board of Public Instruction, Dade County, Fla. She received a bachelor's degree from Hunter College and a master's degree in special educataion from the University of Miami.

■ A. Alfred Zimmerman, who has just completed a two-and-one-half-year assignment as an American Foundation for the Blind consultant in Osaka, Japan, has resigned from the AFOB staff to accept a position in the field of education of the visually handicapped in California.

■ The Viking Press Inc. has just entered the large type field with the publication of the first six titles in a new series called Viking Largetype Books. The format of the new series has been approved by the production review committee of National Aid to the Visually Handicapped.

Viking Largetype Books will be available in libraries and through regular bookstores. The first six titles in the series are *Of Mice and Men* by John Steinbeck; *An Episode of Sparrows* by Rumer Godden; *The Power and the Glory* by Graham Greene; *The Doorbell Rang* by Rex Stout; *We Have Always Lived in the Castle* by Shirley Jackson; and *My Family and Other Animals* by Gerald Durrell.

■ A new film on tactual lip reading is available for purchase or rent from Campbell Films. The film, *Speech Instruction With A Deaf-Blind Pupil,* shows Mrs. Rose M. Vivian, principal of the department for deaf-blind children at the Perkins School for the Blind, working with a pupil on the pronunciation of one word. The film demonstrates the effort required by the pupil to reproduce the vibrations of the teacher's voice clearly.

The film, which is in color, can be purchased for $65 a print or rented for two days for $5. For further information, write Campbell Films, Saxtons River, Vermont 05154.

■ *Some People From Brooklyn* a 15-minute film made by the Brooklyn Bureau of Social Service and Children's Aid Society, is available without charge to organizations and groups in the New York metropolitan area.

Filmed in the Bureau's sheltered workshops, counseling offices, and free summer camp for the blind and handicapped, *Some People From Brooklyn* shows how troubled married couples and families find renewed affection, how children without parents learn to accept the love of foster parents, and how blind and handicapped men and women learn to work and become self-supporting and independent.

For further information about the film, contact the Bureau's Public Information Department, 285 Schermerhorn Street, Brooklyn, N. Y. 11217.

■ William C. Fitch has joined the National Council on the Aging as executive assistant to the president. Mr. Fitch has served previously as director of the Special Staff on Aging in the U.S. Department of Health, Education, and Welfare, and as staff director of the White House Conference on Aging.

■ *The Legacy of Anne Sullivan,* a new half-hour color film honoring the woman whose pioneering efforts with Helen Keller paved the way for today's programs for deaf-blind persons, is now available on free loan from the Industrial Home for the Blind.

For further information about the film, which was produced by IHB and Perkins School for the Blind, write to the Industrial Home for the Blind, 57 Willoughby Street, Brooklyn, New York 11201.

■ A new catalogue of films on mental retardation is now available from the Rehabilitation Services Administration. The catalogue is available free on request from the RSA Information Service, Social and Rehabilitation Service, U.S. Department of Health, Education, and Welfare, Washington, D.C. 20201.

■ Woodward Kingman has been elected president of the Louis Braille Foundation for Blind Musicians, Inc., a national non-profit organization dedicated to the advancement of the interests of blind people in the field of music.

Other officers elected at the annual membership meeting were Mrs. Elizabeth E. Mills, vice-president; Mrs. D. Hill van Beuren, secretary; and Richard Schumer, treasurer.

■ Dr. Norman Yoder joined the Cleveland Society for the Blind as director of staff development on July 15. He was formerly Pennsylvania State Commissioner of the Blind.

■ M. Robert Barnett, executive director of the Foundation, has announced that a National Task Force on Geriatric Blindness and Severe Visual Impairment will be established by the Foundation in the near future.

The Task Force will deal with the urgent issues, national in scope, affecting the welfare of the 65 percent of the nation's blind and visually impaired who are elderly, as identied at a 1967 research meeting sponsored by the Foundation. The Task Force will analyze and assess existing information on the aging blind and determine a national course of action for coordination at a national and local level.

Membership will include leadership in related fields from federal and voluntary agencies as well as individuals selected because of personal qualifications. Key organizations and individuals have been designated for candidacy in such areas as income maintenance, housing, recreation and social participation, health, welfare, and employment.

Staff service within the program planning department of the Foundation is being provided by Miss Dorothy Demby, specialist in social welfare.

Coming Events

October 6-10 National Industries for the Blind, Annual Meeting, Seattle, Washington.

October 8-11 National Association for Retarded Children, Annual Convention, Miami, Fla.

October 9-11 American Federation of Catholic Workers for the Blind, Annual Conference, Washington, D.C.

October 19-23 National Rehabilitation Association, Annual Convention, New Orleans, La.

October 28-31 American Association of Homes for the Aging, Annual Conference, San Francisco, Calif.

November 1-5 American Academy of Ophthalmology and Otolaryngology, Annual Meeting, Chicago, Ill.

November 11-15 American Public Health Association, Annual Meeting, Detroit, Mich.

November 13-17 Council of Jewish Federation and Welfare Funds, Annual Meeting, Atlanta, Ga.

November 18-22 The National Association for Mental Health, Annual Meeting, Boston, Mass.

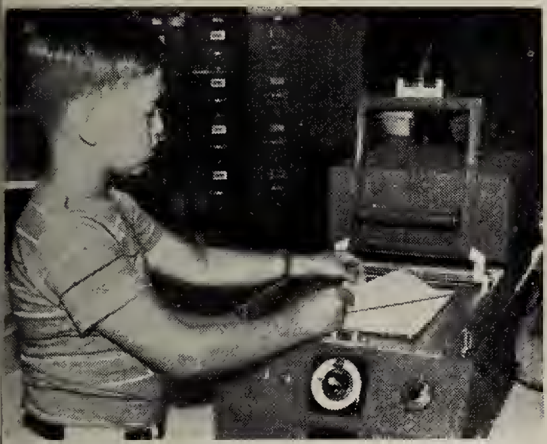
November 20-22 National Society for the Prevention of Blindness, Annual Meeting, New York, N.Y.

December 5-6 National Social Welfare Assembly, New York, N.Y.

January 21-23 Council on Social Work Education, Philadelphia, Pa.

March National Conference on the Aging, Annual Conference and Business Meeting, New York, N.Y.

March 9-12 National Health Council, National Health Forum, New York, N.Y.



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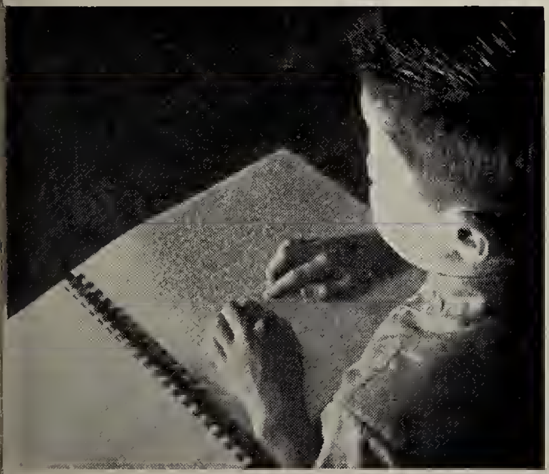

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Large Type Reading Materials for the Visually Handicapped

JOHN N. GARTNER

Mr. Gartner is manager, market analysis, for the Information Systems Division of the Xerox Corporation, Rochester, New York.

Both the prevalence and severity of visual handicaps increase rapidly with age. The severity of visual handicaps is also greater among the elderly. Figures derived from the U.S. Public Health Service's National Health Survey taken during the two-year period from July, 1963 to June, 1965 show that the proportion of visual impairments that caused limitation of major activities increased from 13.6 percent among the blind and visually handicapped under age 45, to 20.1 percent in the 45 to 64-year-old group, and to 31.8 percent in the 65 and over group (Cohen, 1966).

Estimates released by the Administration on Aging indicated that there were 1.45 million people over age 65 with chronic visual impairments as of 1966. This represented a rate of 80 per 1,000 of the population in this growing age bracket (AOA, 1966). Of these, approximately 470,000 had impairments severe enough to cause inactivity, including 195,000 who were legally blind.

Reading abilities of the elderly vary considerably

Optical correction, by means of eyeglasses, contact lenses, and other devices, is, of course, a major factor in determining the reading ability of a given individual at a given level of visual acuity. However, because of biophysical inconsistencies, the reading abilities of the elderly vary considerably, even with proper correction, at all levels of visual acuity (literacy notwithstanding). For this reason, it is extremely difficult to accurately determine the number of elderly persons whose reading needs might best be served by materials with type sizes larger than normal.

Considering the statistics already presented, it is likely that the number of Americans over 65 who should have large type reading matter is about 1.1 million. However, considering all those who might find large type more convenient, if not absolutely necessary, the number of elderly who would enjoy reading large type materials may range up to 10 million. This larger group includes persons with so-called *tired eyes.* A large number of people under 65 also fit this category.

Sources for Large Type Publications

☐ Until recently, the production of large type reading matter for adults was completely overlooked by commercial publishers. To obtain large type, one had to use a magnifying glass or other device to enlarge conventional type while he was reading or have someone prepare a large type transcript of the text on a bulletin size (18 point) typewriter—quite a laborious process. However, typewriter transcribing has been used primarily to prepare school textbooks for visully handicapped children. The large type textbook field has also been served by the American Printing House for the Blind which reprints conventional textbooks in large type by a photo-offset process. School children are also served by Stanwix House, which produces textbooks in large type, and Lancer Books which publishes paperback editions of the classics on tinted paper using 12 point type with heavy leading.

Visually handicapped adults as well as children have also been served by National Aid to the Visually Handicapped. This non-profit organization relies on volunteer transcribers who type enlarged offset masters which they send to its San Francisco headquarters for reproduction and distribution. Because of the involved nature of this, only a limited number of readers can be accommodated.

Religious organizations

Three religious organizations have played a major role in providing large type materials of interest to the elderly visually handicapped. The American Bible Society (Protestant), the Xavier Society (Catholic), and the Jewish Braille Society of America, all produce bibles and religious texts.

Microfilming

Several commercial microfilm firms film and enlarge books on demand. Because it is based on a per page charge, this service is expensive. Its use is generally limited to schools and libraries serving large visually handicapped groups. Firms producing large type materials in this manner include Bell and Howell, Dakota Microfilm, the Microfilm Company of California, Volunteer Transcribing Services, and the Xerox Corporation.

Last year, only a few of the more than 1,000 American publishers produced large type books. In addition, one British publisher was in the field. Encouragingly, six more publishers have introduced large type titles in 1968.

Commercial publishers

☐ Book publishers have been extremely reluctant to enter the large type market because they feel that sales would be too small to be profitable in view of the high printing and promotional costs involved. However, as the statistics suggest, the number of potential readers of large type books is substantial. Furthermore, the costs of reprinting titles in large type are coming down as new photo-offset techniques are developed, so we should expect to see more market entrants in the future.

One of the first commercial large type publishing ventures was not a book but a periodical. In 1963, the Xerox Corporation obtained the rights to reprint an enlarged edition of *Reader's Digest*. The *Enlarged Type Reader's Digest*, available by subscription, is a reprint of the conventional *Reader's Digest* in 18 point type. All of the magazine is reprinted except the advertising.

Two years later, Keith Jennison Books began publishing large type editions of classics. The list of titles has been broadened to include reprints of more recent books and now runs to about 130. The Jennison list includes the Bible, a dictionary, and a desk encyclopedia. All are available through normal trade book channels. At about the same time, Ulverscroft, a British publisher, began producing large type titles in England which are now available in this country, but only to libraries and other institutions. The Ulverscroft list now has about 200 titles, the longest list of large type titles of interest to adults currently available.

Other book publishers presently serving visually handicapped adults are Harper and Row with 16 large type titles, The Guild for Large Print Books with 15, Walker and Company with 12, the Macmillan Company and

Charles Scribner's Sons with 10 each, The Viking Press with 6, and Large Print Publications with 4 books and a booklet of crossword puzzles. While many of these titles are classics aimed at younger audiences, an effort is being made to include more books of interest to adults.

A notable development in the large type field during 1967 was *The New York Times' Large Type Weekly.* This is a 32-page weekly newspaper composed primarily of condensed news articles, columns, and editorials of the sort that appear in the "News of the Week in Review Section" of the Sunday *Times.* It is a specially prepared edition, not a reprint of existing material. Like the *Enlarged Type Reader's Digest* it is available by subscription and contains pictures but no advertising.

This fall *The New York Times* and Golden Press will publish a large print cookbook written by Jean Hewitt of the *Times* staff. And David White has announced publication of a large type cookbook by Avenelle Day, who conducts cooking classes for the New York Association for the Blind. Similar works are sure to follow.

Attitudes of Visually Handicapped Persons to Large Type

☐ Unfortunately, little research has been conducted to determine the attitudes of visually handicapped persons of any age to large type reading matter by itself, or compared to other information or entertainment media. To bridge this gap, the Xerox Corporation conducted a mail survey of its *Enlarged Type Reader's Digest* subscribers in September, 1967. The survey was conducted in two parts with separate questionnaires sent to 618 individual and 344 institutional subscribers. By the cutoff date five weeks after mailing, usable response rates of 54.7 percent of the institutions and 44.7 percent of the individuals surveyed (48.2 percent overall) were achieved, far above average for a consumer mail survey without a tangible incentive and high enough to insure the statistical validity of the findings. It should be noted, however, that the resulting data reflect the characteristics only of *Enlarged Type Reader's Digest* subscribers, who may be unrepresentative of all those who need or prefer large type reading materials.

Reader's Digest subscribers

As hypothesized, the individual subscriber group was composed almost entirely of the elderly. Ninety-three percent of the respondents indicated that they are over 65, with 88 percent over 70. Although asked only to indicate age group, many respondents wrote in their age. The oldest is a woman who claimed to be 102; many are in their eighties and nineties. The distribution of respondents by sex follows the general sex distribution of the elderly—71 percent are women. About one-fifth of the respondents claim to be legally blind. About 70 percent of them live in their own homes. The others live with relatives or friends, or in nursing or retirement homes.

Sixty-four percent of the respondents received their subcriptions to the *Enlarged Type Reader's Digest* as gifts. This reflects the advertising of this periodical and the *Times Large Type Weekly,* both of which are promoted primarily as gift items. As might be expected, because of the subscription's cost, the respondents who bought their own subscriptions have incomes far above average for the over 65 age group. Half claimed household incomes of $10,000 or more, with 35 percent over $15,000. Fifty-seven percent of those who bought subscriptions themselves are sole sources of income in their households.

Positive comments

Individual subscribers are apparently very pleased and indicated that large type fulfills their reading needs. Seventy-five percent of the respondents checked that they are "very satisfied" with it and another 16 percent checked that they are "quite satisfied." The elderly readers' general satisfaction with the product was indicated by their responses to the open-ended questions: "What are the things you like best about it?" and "What are the things you do not like about it?" Although most questions were answered by over 90 percent of the individuals surveyed, only 72 percent mentioned specific likes and a mere 31 percent dislikes. Most of the positive comments centered on the content rather than the format of the magazine. This should not be surprising since close to 90 percent of the respondents were readers of the regular *Reader's Digest* before receiving their *Enlarged Type Edition* subscriptions.

Negative comments

Negative comments were more frequent from those who received gift subscriptions than from those who bought it themselves. The major criticism was that the magazine is too large or too heavy. It measures 10-3/4" x 14-1/4" and is shipped in two sections of about 90 pages each to cut down on bulk. It is produced to conform with recommendations for large type publications set forth by the National Society for the Prevention of Blindness including a plastic spiral binding that allows the pages to lie flat—a feature positively noted by many respondents.

The majority of subscribers read few regular type materials. Only about one-quarter of them had read one or more regular type books during the four weeks before they received their questionnaires. About 42 percent had read one or more regular type magazines during that period. Sixty percent had read one or more newspapers during the period, but many wrote that they read only headlines. Three-quarters of the regular type readers use a visual aid in addition to eyeglasses to read regular type. All of these facts seem to imply that the elderly visually handicapped cannot, or do not want to read a great deal—either in regular type with visual assistance, or in large type without it. However, this conclusion is highly qualified since the survey sample was limited to subscribers to a particular periodical rather than to the entire elderly visually handicapped population.

What large type readers want

☐ The reading appetites and/or abilities of *Enlarged Type Reader's Digest* subscribers varied considerably. The questionnaire asked respondents to list books and/or magazines not currently available that they would like to read in large print. Twenty-six percent of the respondents listed a variety of book types or specific titles. Fiction, religious subjects or bibles, and biographies led the list, followed by "best sellers," mysteries, and other topics.

A wide diversity of interests was shown by the 24 percent of the respondents naming one or more magazines. In total, 51 different magazines were requested. *Time* led with 21 mentions, followed by *U.S. News and World Report, McCall's, Life, Ladies' Home Journal,* and *Newsweek.* Not unexpectedly, the women seemed to favor women's and shelter magazines, while men tended toward newsweeklies.

Unfortunately, the extremely high cost of producing large type editions together with the expanded use of color, and the dispersement of advertising and other graphic material preclude the commercial possibility of reprinting weekly magazines such as *Time* and *Newsweek* in enlarged formats. The situation is eased somewhat for a monthly such as the *Reader's Digest* with relatively low graphic content and advertising pages distinct from copy pages. It is highly unlikely, therefore, that there will be any new large type magazine ventures such as that started by the *New York Times*. However, as they meet with success with individual large type titles, it is likely that more and more book publishers will attempt large type reprints of their books that would be of interest to visually handicapped adults.

Because large type books are usually somewhat more expensive and the two large type periodicals are significantly more expensive than their regular equivalents, we should expect that the visually handicapped elderly look to libraries as a source of large type reading materials. Institutions subscribing to the *Enlarged Type Reader's Digest* are primarily although not exclusively those that serve the elderly. Forty-five percent are public libraries and 22 percent are nursing or retirement homes. The remainder are hospitals, clinics, schools, and other institutions, in that order.

Large type collections in libraries

Encouraged by the success of a two-year federally financed project to build up a large type collection at the New York Public Library, other public libraries in areas with large numbers of older patrons are starting large type sections. Generally, their budgets for these materials are extremely limited and they often rely on the generosity of donors to get them started. Lion's Clubs are particularly active in this area.

The libraries surveyed pointed out that it takes a while for the demand for large type materials to build up, but that they are glad to be able to serve additional patrons who are not able to read conventional materials. Ninety percent of the library respondents indicated that they consider their use of the *Enlarged Type Reader's Digest* "successful." Typically, they shelve the current issue with regular periodicals and allow previous issues to circulate. Very few of the responding libraries have set up discrete large type collections, although several indicated that they plan to do so as the demand for these books and periodicals increases.

Use of large type in institutions

All nursing and retirement homes surveyed indicated that they consider their use of the *Enlarged Type Reader's Digest* "successful." About half of them stated that more than 20 percent of their residents require large type—giving them the greatest proportion of potential large type readers of any institutional group in the survey. These homes rely heavily on gifts of large type materials, allowing the smallest amounts of all the institutional groups studied for the purchase of such reading matter. It should be noted that several of the individual subscribers and even some institutions remarked that they donate their large type back issues to nursing homes. One nursing home administrator stated that at the end of the year they pass along their copies of the *Reader's Digest* to smaller, less fortunate homes. She commented: "They tell me that they are used until they are practically worn out." Another administrator observed that: ". . . for the few who do need the large print, it is a Godsend, as this gives them the opportunity to continue reading. Then again the individual has some sort of occupation and interest to encourage others." A third nursing home administrator said: "Most of the patients wouldn't read at all if they didn't have the large print. Even patients who could read the regular print enjoy the large print because it is easier on the eyes . . ."

Some Conclusions

☐ In summary, it may be concluded that large type books and magazines will play an increasing role in providing information and entertainment for elderly people with failing sight. The convenience of the large type format compared to the cumbersome use of magnifying glasses and other devices with regular type materials is such that the elderly visually handicapped who might forego the enjoyment of the printed word altogether now have the opportunity to continue reading.

Technological advances in printing techniques have brought large type books and periodicals within the economic reach of some elderly individuals and, more importantly, of many institutions such as the libraries and homes that serve them. As publishers come to realize that a large and growing audience exists for these large type reading materials, we may be assured that there will be a proliferation of titles that will allow the visually handicapped elderly to continue reading.

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Sources for Large Type Materials

Harper & Row, 49 East 33rd St., New York, N.Y. 10016
Golden Press, 850 Third Ave., New York, N.Y. 10022
Keith Jennison Books, 575 Lexington Ave., New York, N. Y. 10022
Large Print Publications, 11060 Fruitland Drive, North Hollywood, California 91604
The Macmillan Company, 866 Third Ave., New York, N.Y. 10022
Charles Scribner's Sons, 597 Fifth Ave., New York, N. Y. 10017
Ulverscroft Large Print Books, F. A. Thorpe, Ltd., Artisan House, The Bridge, Anstey, Leicester, England
The Viking Press, Inc., 625 Madison Ave., New York, N. Y. 10022
Walker and Company, 720 Fifth Avenue, New York, N.Y. 10019
American Printing House for the Blind, 1839 Frankfort Avenue, Lousiville, Ky. 40206
National Aid to Visually Handicapped, 3201 Balboa St., San Francisco, California 94121
Stanwix House, 3020 Chartiers Avenue, Pittsburgh, Pa. 15204
Bell and Howell Co., Micro Photo Division, Duopage Department, 1700 Shaw Ave., Cleveland, Ohio 44112
Dakota Microfilm Company, 501 North Dales St., St. Paul, Minn. 55103

Microfilm Company of California, Library Reproduction Service, 1977 South Los Angeles St., Los Angeles, Calif. 90011
Volunteer Transcribing Services, 617 Oregon Ave., San Mateo, Calif. 94402
Xerox Corporation, P.O. Box 3300, Grand Central Station, New York, N.Y. 10017

The Canadian National Institute for the Blind Observes its 50th Anniversary

The Canadian National Institute for the Blind, which provides diverse services on both the national and local levels for all of Canada's blind persons, is marking its golden jubilee this year. In marking its 50 years of services, the Institute is placing the emphasis on its future rather than on its past.

The golden jubilee began officially on January 9, 1968 when George C. Thompson, CNIB national president, turned the sod for a new building at the organization's Toronto headquarters. The new building will be known as the Arthur V. Weir National Training and Vocational Guidance Centre. It will provide a complete program of assessment using psychological, social, and medical services to assist in determining realistic training and vocational goals. Once goals are established, training will be given to the blind persons in the careers chosen. The Centre will also provide training for sighted persons who join the CNIB staff.

The new Centre will also include a research program to discover new job opportunities, and a training shop that simulates working conditions and makes possible industrial evaluations and training in such fields as metal work, mechanics, and assembly.

On Founders' Day, March 29, CNIB's past and future were linked when Dr. C. W. Carruthers, one of the organization's founders, laid the cornerstone for the Weir Centre. Anniversary celebrations also took place on that day in CNIB's seven other divisions across Canada.

In addition to the new building and services, CNIB is celebrating its 50 years of service by giving a Golden Jubilee Award to 50 outstanding Canadians in recognition of distinguished service to the blind of Canada.

A Correlation Study of Haptic Subtest Scores and Travel Rating Skills of Blind Adolescents

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One problem in the complex area of the acquisition of travel skills by the blind is the need to develop a readiness test designed to screen potential candidates for travel instruction. If mobility instructors had an evaluation instrument with which the degree of readiness of training candidates could be measured, the effects of a travel program upon the individual could be ascertained. Research into technological development of sensory devices has seemingly overshadowed research related to the blind individual's capabilities for orientation and mobility instruction. However, some investigations and projects have placed their focus of attention on the psychological aspects surrounding travel by the blind.

During the past decade, the efforts of a wide variety of professional personnel have been directed toward solving a myriad of travel competency questions. Will the individual be able to travel independently and efficiently? At what age can travel skills be taught? Investigators of a mobility project in California have developed an inventory of sequential levels in performances associated with mobility skills and related concepts for blind children, ages two through 12 (Blaha, 1966). The Maryland School for the Blind has stressed the importance of having young blind children actively engaged in the exploration of their environment through auditory, tactual, and kinesthetic sensations. Parents, teachers, and children are encouraged to use terms such as forward, backward, right, left, north, south, east, and west consistently in these preliminary instructions (Baird, 1961).

When should formal travel instruction begin?

☐ Although the vital role of elementary teachers, parents, and residential staff personnel is not to be overlooked (Alonso, 1965), formalized travel instruction, the acquisition of sophisticated skills, should not begin until the child's adolescent years. Reports by Goodman (1965) and Gockman (1966) describe the efficacy of orientation and mobility programs for junior and senior high school students. The last wave of retrolental fibroplasia children are in this age bracket; however, the supply of qualified instructors is insufficient to meet their needs or those of adventitiously blinded youth and adults. The paucity of professionally trained orientation specialists, in the schools, local agencies, and hospitals emphasizes the immediacy of the problem. Furthermore, a systematic assessment of the blind individual's readiness abilities and the effect of mobility instruction upon the individual's ability is needed to provide a functional analysis of travel programs. A survey (Linsner, 1961) of mobility training programs revealed the existence of well-known pervading variables; degree of vision, onset of blindness, size of sampling population, mode of travel, hours and technique of instruction, *Value of Readiness Test*

and degree of travel adjustment upon the completion of a course of instruction. Respondents to the survey indicated the utilization of physical and psychological intake procedures which included general medical, opthalmological, and aural examinations and intelligence, aptitude, and personality evaluations. Information obtained from these evaluations was disseminated to the travel instructors; however, predictive usefulness of the data was not indicated.

Clowes (1965) has questioned the relevance of improving sensory aids without direction of scientific investigation into the blind user's capabilities. "Relatively little investigation of the human skills subsuming the effective use of such devices [existing transducers] has so far taken place (p. 169)."

□ The possible relationship between the complexity of blind individuals' mental capabilities and the acquisition and maintenance of travel skills has not been investigated extensively. However, the desirability for research on this topic has been suggested by Graham (1965). He advocated the necessity of devising a readiness test to predict the possible success of a person embarking on formalized mobility training. Development of such a test would have three-fold value: (1) larger numbers of blind individuals can be screened as potential trainees; (2) instructors would have a guideline for the implementation of an individualized travel program; (3) systematic pre and post data information could aid in standardization procedures.

Development of test

A possible step toward the development of a readiness test was initiated somewhat serendipitously in a recent testing project undertaken by this writer. The initial project involved the administration of the Haptic Intelligence Scale for Adult Blind (1961) to a group of ten blind adolescents. When the HIS was administered to the blind students, their approach to the solution of one subtest, the Pattern Board, was noted to resemble orientation techniques. Observation of students' performance on the Pattern Board led to a subsequent study designed to investigate the possible correlation between the scores on the Pattern Board and independent travel skills.

Subjects

The subjects were 33 adolescent students who were enrolled in two residential schools for the blind. Ten of the subjects, group I, were students at the Kansas School for the Blind. Twenty-three of the subjects, group II, were students at the Missouri School for the Blind*. The age range was 16 years three months to 20 years six months. The subjects' vision did not exceed 5/200 central visual acuity in the better eye. The age and vision criteria conforms to the standardization measures established for the Haptic Intelligence Scale. Table 1, which appears at the top of the following page, indicates the chronological age, sex, and visual acuity of the 33 subjects.

TABLE 1

Age, Sex and Visual Acuity for Group I and Group II

Subjects	*Age*	*Sex*	*Level of Vision*
Group I			
A	17-2	M	R-4/200 L-4/200
B	16-2	M	Nil
C	17-9	M	Nil
D	20-7	M	Nil
E	18-1	M	R-5/200 L-5/200
F	17-6	F	R-HM L-Nil
G	20-0	M	Nil
H	18-6	F	Nil
I	16-10	F	Nil
J	16-10	F	Nil
Group II			
A	17-1	M	Nnl
B	16-7	M	R-LP? L-LP?
C	19-5	F	Nil
D	16-4	M	Nil
E	18-6	M	R-LP L-Nil
F	19-10	M	R-LP L-Nil
G	17-2	F	Nil
H	18-3	M	R-LP L-Nil
I	16-3	F	R-LP L-Nil
J	17-7	F	R-Finger L-Finger
K	17-3	F	Nil
L	17-3	M	R-Nil L-HM
M	16-7	M	Nil
N	17-11	M	Nil
O	17-2	F	Nil
P	20-1	M	R-LP L-Nil
Q	16-9	F	Nil
R	18-1	M	Nil
S	16-7	F	Nil
T	17-10	M	R-LP L-Nil
U	17-3	M	R-LP L-LP
V	18-0	M	Nil
W	17-5	F	R-LP L-Nil

The Pattern Board measuring seven and one-half inches square, has 25 round holes arranged in five vertical and horizontal rows. A fixed peg is in the center hole of the board. The subject is presented with a peg pattern which he is allowed to examine. After an established interval, the pegs are removed, and the subject is asked to reproduce the pattern. Some of the students engaged in random and inconsistent manipulations while others were systematic in the replacement of the pegs. The latter group used these skills: (1) landmark—the location of the fixed peg; (2) direction taking—getting a straight line fix from the center peg or the edge of the board; (3) squaring off—aligning the hands in relation to the pegs; (4) clue—auditory clue.

School staffs evaluated students

To investigate the relationship between the students' performance on the Pattern Board and their mobility skills, a questionnaire was distributed to the personnel in the two schools. Staff members were given the names of the students involved in the investigation and asked to rank the students in a priority list according to their mobility skills, that is, the student's ability to travel independently on the school grounds. The respondents included nurses, teachers, houseparents, and administrative personnel. They did not consult other staff members for the completion of the rankings. The Haptic Intelligence Scale was administered to group I; however, only the Pattern Board was administered to group II.

Analyzing the data

The Spearman rank correlation coefficient test was used to analyze the data (Siegel, 1956). This non-parametric statistic requires that both variables be measured in an ordinal scale so that the subjects can be ranked in two ordered series. The subjects were ranked in the order of their median rating by school personnel. Group I subjects were also ranked in the order of their IQ scores and in order of the ratings of the school personnel. Group I rankings were further compared after two subjects who had travel vision were deleted from the series of rankings.

Critical values of r_s for levels of significance were obtained (Siegel, 1956, p. 284). The following tables present tabulations of the variables in their ordinal positions.

TABLE 2

Ranks on School Staff Ratings and Pattern Board Scores: Group I, N = 10.

	Rank			
Subject	*Staff*	*Pattern Board*	*d*	d^2
A	1	5.5	4.5	20.25
B	2	3.0	1	1
C	3	1	2	4
D	4	2	2	4
E	5.5	8	2.5	6.25
F	5.5	4	1.5	2.25
G	7	7		
H	8.5	5.5	3	9
I	8.5	9	.5	.25
J	10	10		
				Ed^2 47.00

$r = .72 \quad p < .05$

TABLE 3

Ranks on School Staff Ratings and Pattern Board Scores: Group I, N = 8.

	Rank			
Subject	*Staff*	*Pattern Board*	*d*	d^2
B	1	3	2	4
C	2	1	1	1
D	3	2	1	1
F	4	4		
G	5	6	1	1
H	6.5	5	1.5	2.25
I	6.5	7	.5	.25
J	8	8		
				Ed^2 9.50

$r = .89 \quad p < .01$

TABLE 4

Ranks on School Staff Ratings and IQ Scores: Group I, N = 10.

	Rank			
Subject	*Staff*	*IQ*	*d*	*d*^{2}
A	1	6	5	25
B	2	1.5	.5	.25
C	3	3		
D	4	1.5	2.5	6.25
E	5.5	5	.5	.25
F	5.5	4	1.5	2.25
G	7	8	1	1
H	8.5	9	.5	.25
I	8.5	7	1.5	2.25
J	10	10		
				Ed^2 37.50

$r = .77$ $p < .01$

TABLE 5

Ranks on School Staff Ratings and IQ Scores: Group I, N = 8.

	Rank			
Subject	*Staff*	*IQ*	*d*	*d*^{2}
B	1	1.5	.5	.25
C	2	3	1	1
D	3	1.5	1.5	2.25
F	4	4		
G	5	6	1	1
H	6.5	7	.5	.25
I	6.5	5	1.5	2.25
J	8	8		
				Ed^2 7.00

$r = .92$ $p < .01$

TABLE 6

Ranks on School Staff Ratings and Pattern Board Scores: Group II

	Rank			
Subject	*Staff*	*Pattern Board*	*d*	*d*^{2}
A	1	9	8	64
B	2	2.5	.5	.25
C	3	5.5	2.5	6.25
D	4.5	12	7.5	56.25
E	4.5	5.5	1	1
F	6.5	14	7.5	56.25
G	6.5	1	5.5	30.25
H	8.5	5.5	3	9
I	8.5	2.5	6	36
J	11	15.5	4.5	20.25
K	11	11		
L	11	13	2	4
M	13	9	4	16
N	14	15.5	1.5	2.25
O	15	18.5	3.5	12.25
P	16	9	7	49
Q	17	5.5	11.5	132.25
R	18.5	20	1.5	2.25
S	18.5	22	3.5	12.25
T	20.5	18.5	2	4
U	20.5	23	2.5	6.25
V	22	21	1	1
W	23	17	6	36
				Ed^2 557.00

$r = .72$ $p < .01$

Results and Discussion

☐ Overall results indicate significant relationship between Pattern Board scores and residential school personnel ratings of students' travel skills. As shown in table 4 and table 6, the personnel ratings and Pattern Board rankings of group II reached a higher significance level ($p < .01$) than personnel ratings and Pattern Board rankings of Group I ($p < .05$). When the population of group I was reduced to eight subjects (see table 3), after elimination of the variable of travel vision, the significance was greater than .01 level. This variable was not present in group II since no student's visual acuity reached the 5/200 level.

While the question of intelligence and its effect on mobility skills is often a debatable issue, data from table issue, data from table 4 and table 5, indicate a significant relationship between group I's staff ratings and IQ score rankings at the .01 level. Each of the remaining five subtests of the Haptic were ranked with the staff ratings; however, the .05 level was not obtained. The significant correlation between group I's staff ratings and IQ rankings would merit additional sampling.

Only the Pattern Board subtest was administered to group II subjects. Group II staff ratings and Pattern Board ranking reached a .01 significance level; thus adding additional evidence to support the high correlation findings of group I.

More investigation indicated

Future investigation designed to explore the tactical feasibility of the Pattern Board as a possible measure of orientation readiness is indicated. Discerning observations by mobility specialists of the tasks involved in the solution of the Pattern Board test may bring about the specification of tasks relevant to the skills taught to the blind in a travel training program. Whether the skills involved in the exploration of a pegboard can be translated to the magnitude of the physical environment remains to be investigated.

Significant relationships between pattern board scores and personnel ratings

Thirty-three blind adolescent students were administered the Pattern Board subtest of the Haptic Intelligence Scale (HIS) for Blind Adults. Residential school staff members were given the names of the students involved in the investigation and asked to rank the students in a priority list according to their mobility skills. Results indicate a significant relationship between Pattern Board scores and personnel ratings. This correlation reached a .01 level of significance when two students with travel vision were deleted from the sampling population.

Possible relationship between students' psychological processes and mobility skills

Eight students from this group were also administered the HIS full scale battery. The significant correlation between the staff ratings and IQ rankings suggest a possible relationship between the students' psychological process and their mobility skills. It is reasonable to assume that an individual's translation of environmental stimuli through cutaneous and auditory channels requires specific learning abilities. Furthermore, the blind person must interpret sound and tactual reception on his level of organization and understanding. These performance parameters, stimuli reception and translation, organizational level, and comprehension are responses involved in mental processing. The identification of these abilities or disabilities within an individual is generally associated with intellectual capacity; however, these abilities are also involved in mobility performances. Further study of travel skill ratings and IQ performances may substantiate or disprove the relationship between intelligence and mobility skills.

Significant correlation between Pattern Board ranked scores and staff ratings as evidenced in the results of this study suggests a need for future research into a readiness test for mobility training. Construction of such a test is a laudable goal; however, time, funds, experimentation, and research appear to be necessary ingredients to the finalization of a test. Efforts in this direction would serve to (1) provide a concrete basis for the selection of trainee candidates before travel training begins; (2) minimize the horrendous and often subjective in-take programming of the candidates' strengths and weaknesses; (4) establish a vehicle for the comparison of trainee's performances; and (5) facilitate systematic reporting upon which future research could be extended.

The construction of a readiness test would not have perfect accuracy as its goal. It would have the availability of knowledge by which better decisions would be made to enhance an individualized travel program for blind adolescents and adults.

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A Non-verbal Measure of Intelligence for Totally Blind Adults

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Although there are several intelligence tests that may be used with blind persons, most are primarily verbal. Few studies have dealt with the application of non-verbal tests of intelligence to blind subjects, though it would seem that successful adjustment on the part of a blind person to his environment requires non-verbal as well as verbal abilities.

Wattron (1956) reported a correlation of .84 between scores on a tactual adaptation of the Kohs Block Design test and mental ages on the Hayes-Binet. Rubin (1963) in a test of the hypothesis that congenitally blind adults would score lower than sighted and later-blinded subjects on tests of abstraction, utilized a modification of the Number Series Completion test from the Modified Alpha Examination, but reported that further research was needed before any conclusions could be drawn. Rich and Anderson (1965) developed a tactual form of the Raven's Coloured Progressive Matrices, and reported high reliability and moderate validity coefficients in a group of 115 blind children.

The D 48 Test

☐ Because of the scarcity of non-verbal measures of intelligence available for use with the blind, this study was undertaken to investigate the applicability of the D 48 in the measurement of the intelligence of the blind. The D 48 test (Gough and Domino, 1963) contains 44 problems, each consisting of a series of dominoes defining a principle of progression.

In an investigation of 86 grade school children, Gough and Domino (1963) found a statistically significant correlation between D 48 scores and scholastic achievement, as measured both by grade point average and by scores on the Stanford Achievement test. Domino (1964) compared the D 48 with the Cattell Culture Fair and the Army Beta and found that only the D 48 correlated significantly with grade point average in a sample of male college students. In addition, D 48 scores correlated significantly with various verbal and non-verbal measures of intelligence. Welsh (1966) reported a correlation of .49 between D 48 scores and scores on the Terman Concept Mastery Test for a group of 368 gifted high school students.

Testing the D 48 test

In addition to the above evidence that the D 48 is applicable to subjects of varying chronological ages, and that D 48 scores are positively correlated with both verbal and non-verbal measures of intelligence, there are additional reasons for investigating the applicability of the D 48 with blind subjects. The D 48 is almost entirely non-verbal. The problems are non-verbal, and the verbal instructions are relatively simple. Because of the material utilized (dom-

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ino sequences) the D 48 seems eminently qualified for cross-cultural studies, and in fact, from its usage in nearly every country in Europe appears to have proved its value in this respect. Thus, average scores for subjects of similar age and educational level in different countries indicate a close correspondence (Gough and Domino, 1963). More germane to the present study, the domino sequences can, theoretically at least, be directly translated into a variety of forms suitable for presentation to the blind: e.g., tactual presentations by using braille, elevated surfaces, or three-dimensional dominoes, and aural presentation by orally administering each item.

Domino sequences flexible

It is the aim of this study to investigate the applicability of the D 48 with blind subjects, and to compare the D 48 to estimates of intellectual achievement as obtained from the WAIS, from ratings of interview material, and ACL protocols.

Method

☐ The Ss were 30 make adults (CA range from 20 to 46), all totally blind from birth. All were functioning members of a community, i.e., either self-supporting or living at home, rather than in an institution. They were contacted through a wide variety of sources, including personal acquaintance, college counseling centers, and community organizations. Since they were chosen because of high community visibility (e.g., several were college students), relative adjustment, lack of other pathology (such as deafness or obvious organicity), and willingness to participate in the project, they are not a representative sample of blind adults.

Procedure

Each S was interviewed and information was obtained as to age, marital status, highest level of education, occupational history, leisure time activities, recent readings, degree of self-sufficiency, and degree of independent locomotion. These interviews were semi-structured and followed the format proposed by Bauman and Hayes (1951) for interviewing blind persons.

The interview information was subsequently typed and presented to three vocational rehabilitation counselors to rate on a 10-point scale as to the degree of intellectual efficiency which the S had attained despite his visual handicap. The Ss were not known to these counselors and the ratings were done independently. All three counselors had had a minimum of five years experience in dealing with blind clients.

Administration of test

Each S was administered a tactual version of the D 48, utilizing three-dimensional dominoes available commercially. Each domino was approximately 2 3/4 inches by 1 1/2 inches by 3/8 inches. The domino pips protruded approximately 1/4 inch above the surface. Each sequence of dominoes was presented individually and the S was instructed that it was his task to discover what the missing part might be. The same examples, sequence, and spatial arrangement of the standard D 48 was followed, but no time limit was imposed.

All Ss were also administered the verbal portion of the WAIS, half of the Ss prior to, and half after the D 48.

Rating

Finally, three individuals best acquainted with each S independently rated him on the Adjective Check List (Gough and Heilbrun, 1965). An ACL profile was obtained by considering adjectives checked by at least two raters. For the present study, only two ACL scales were considered, the Number of Favorable

Results

adjectives checked (Fav.) and the Personal Adjustment (PA) scale. According to Gough and Heilbrun (1965), high scorers on the Fav. scale appear to be motivated by a strong desire to do well and to impress others, but always by virtue of hard work and conventional endeavor. High scorers on the PA scale possess a positive attitude toward life, including a capacity to work towards certain goals. It was hypothesized that these two ACL scales should also reflect a blind person's degree of intellectual achievement and thus be positively correlated to D 48 scores; in particular, it was predicted that the D 48 would prove to be an extremely difficult task and that D 48 scores would reflect motivational and personological factors as well as intellectual capability. There is some evidence indicative of a positive relationship between cognitive and personal variables in the blind (e.g., Dean, 1957; Fitting, 1954).

For each S the following information was available:

1) D 48
2) WAIS Verbal IQ
3) ACL, Favorable
4) ACL, Personal adjustment
5) interview ratings
6) age
7) educational level

Scores on these variables were intercorrelated using the Pearson product-moment coefficient.[1]

Table 1 presents a correlation matrix for the seven variables.

TABLE 1

Correlation Matrix Among the Variables Indicated, for a Sample of Blind Ss (N 30)

Variables	*2*	*3*	*4*	*5*	*6*	*7*
1. D 48	.58**	.32	.39*	.84**	.39*	.42*
2. WAIS Verbal IQ		.13	.43*	.56**	.11	.45*
3. ACL Fav.			.79**	.34	.27	.18
4. ACL PA				.37	.21	.10
5. Interview ratings					.18	.49**
6. CA						.63**
7. Educational level						

* Significant at .05 level
** Significant at .01 level

Of the 21 correlation coefficients, five are significant at the .05 level and six at the .01 level. Scores on the D 48 correlate significantly with all other variables, except with scores on the ACL Fav. scale.

Reliability estimate

A reliability estimate of the D 48 was obtained by determining the difficulty level of each item for a group of 108 college students, obtaining comparable halves, scoring the blind Ss' protocols on these halves, and correcting the obtained coefficient with the Spearman-Brown formula. This yielded a coefficient of .87 indicating adequate split-half reliability.

The difficulty level of each item for the present group was also determined.

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[1] I wish to thank John Walsh for conducting the statistical analyses, and the Fordham University Computer Center for time granted for this study.

This information is given in table 2, along with the rank order for each item for the present study and for the sample of 86 children studied by Gough and Domino (1963). A rank order correlation between these two sets of ranks yielded a coefficient of .93, indicating an extremely close correspondence, especially in view of the differing nature of these two samples.

TABLE 2

Difficulty levels of D 48 items for grade school children and blind adults

Item number	*% answering correctly*		*Item number*	*% answering correctly*	
	school children	*blind adults*		*school children*	*blind adults*
1.	97	100	23.	35	47
2.	97	100	24.	10	17
3.	94	97	25.	9	10
4.	95	90	26.	22	17
5.	86	77	27.	42	30
6.	95	83	28.	48	47
7.	70	73	29.	42	13
8.	70	43	30.	52	27
9.	50	30	31.	19	7
10.	85	93	32.	14	13
11.	76	77	33.	51	20
12.	84	80	34.	8	10
13.	91	83	35.	5	0
14.	72	77	36.	33	10
15.	70	67	37.	27	7
16.	74	80	38.	2	0
17.	16	37	39.	3	0
18.	14	43	40.	2	0
19.	65	67	41.	0	0
20.	63	60	42.	5	0
21.	49	43	43.	0	0
22.	7	23	44.	0	0

D 48 difficult

As hypothesized, the D 48 proved to be extremely difficult. The mean of 17.97 for these blind Ss is lower than the means obtained by fifth (18.68) and sixth (20.02) grade students (Gough and Domino, 1963). This is not an artifact of a possible subaverage functioning on the part of these blind Ss since their mean WAIS Verbal IQ is 108.9, with only six Ss scoring below 100.

Similar results are reported by Rich and Anderson (1965) who found that the average scores obtained by blind children on a tactual modification of Raven's Coloured Progressive Matrices were much lower than those obtained by sighted children on the regular form. Whether these results represent evidence of retarded mental development on the part of the blind, or a reflection of the greater difficulty presented by tactual test forms is for now a moot question. Since previous evidence indicates that onset of blindness is negatively related to performance on tasks of form recognition and spatial orientation (e.g., Drever, 1955; Rubin, 1963), it may well be that the low D 48 mean of these blind Ss reflects in great part the perinatal onset of their blindness.

Most Ss made direct references to the difficulty of the D 48 and had to be encouraged to continue. This difficulty may not be desirable in practical testing situations, though it may be an advantage in research studies, or in situations calling for a testing of the limits.

Administering D 48 time-consuming

A related problem involves the total time necessary to administer the D 48. With sighted Ss, the 25 minute time limit is convenient and practical; with blind Ss no time limit was imposed so that the median testing time was approximately two hours, producing fatigue and eliciting objections from a number of Ss. Perhaps one solution to this time element would be to discontinue testing after five consecutive failures. Rescoring the protocols of the present sample by disregarding any successes after five consecutive failures, resulted in score changes for 14 Ss: five decreased their scores by one point, seven by two points, one by four points, and one S by nine points. A correlational analysis using these D 48 scores yielded essentially the same pattern as that presented in table 1.

The combination of difficulty level, length of testing time, and the nature of the items produced in most Ss a stressful situation eliciting a rich variety of maladaptive and successful coping behaviors, verbalizations reflective of self-esteem, effectual and ineffectual patterns of problem solving, as well as regressive behavior (one S, age 28, exhibited thumb sucking), and paranoid thinking (e.g., accusations that no solution was possible because the E had removed a piece). The D 48 may thus provide a standardized means whereby one can observe in miniature the ability of a blind person to tolerate frustration and his utilization of various defense mechanisms.

Score correlations with other tests

☐ Scores on the D 48 correlate significantly with WAIS Verbal IQ's ($r = .58$, $p < .01$) indicating a substantial correspondence between the two tests. In their study of blind children, Rich and Anderson (1965) reported a correlation of .31 between Tactual Progressive Matrices T-scores and WISC Verbal IQ's. Although differences in the homogeneity and CA of these samples, and tests used, make any comparisons extremely hazardous, it is interesting to note the substantially higher correlation obtained in the present study.

D 48 scores also correlate significantly with ACL PA scores ($r = .39$, $p < .05$), indicating a relationship between intellectual ability as measured by the D 48 and personality characteristics as rated by others. The same pattern is also found with WAIS Verbal IQ's which correlate .43 ($p < .05$) with ACL PA scores. These findings may be interpreted as supporting the construct validity of the ACL PA scale and corroborate the authors' interpretation of this scale (Gough and Heilbrun, 1965). Scores on the ACL Fav. scale do not correlate significantly with either D 48 or WAIS, although the coefficients are in the expected direction. These results perhaps reflect the fact that the ACL Fav. scale was constructed on the basis of face validity, whereas the PA scale was developed empirically.

Correlation with interview ratings

A very high correlation ($r = .84$, p. $< .01$) was obtained between D 48 scores and interview ratings, reflecting a close correspondence between intellectual achievement as indicated by test scores and as indicated by everyday behavior. It is of interest to note that this correlation is higher than that obtained between WAIS Verbal IQ's and interview ratings ($r = .56$, $p < .01$). Both correlation coefficients are of course inflated by the heterogeneity of the sample in terms of educational level, occupational achievement, and other indices of achievement.

Finally, as might be expected, performance on the D 48 correlated significantly with both CA ($r = .39$, $p < .05$) and with educational attainment ($r = .42$, $p < .05$).

Although additional evidence is needed, the above results point to the usefulness of the D 48 in testing the intelligence of blind adults. Since the literature indicates a need for measures of intelligence suitable for blind persons (e.g., Donahue and Dabelstein, 1950), the D 48 warrants further attention.

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Creating a Toy for a Blind Child

MARY VOGEL

Mrs. Vogel is an art instructor at Hunter College, New York City.

What characteristics appealed to you when last you selected a toy for a child? Would you have chosen that same toy for a blind child? Perhaps not. Suppose you were to create a toy for a sightless child, how would you go about it? What would you consider important?

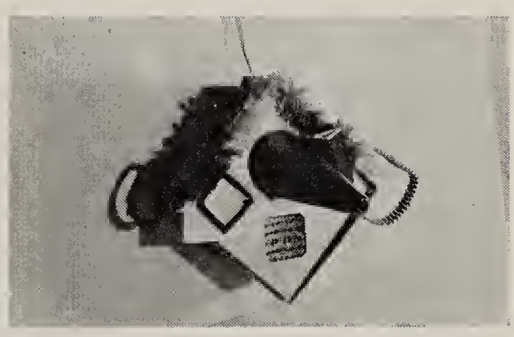
As a start one should immediately disregard the appeal the toy has because of that beautiful yellow color or that pretty red nose on the clown. Although the toy should be aesthetically pleasing to the sighted person, sight appeal has little significance for the blind child.

What features the toy should have

The first consideration in creating a toy for the blind child is size and weight. The child will enjoy the toy if it can be easily handled most of the day. Therefore, its portability is very important. It should not be so heavy as to fatigue the child, nor should it be so small that its construction is difficult. A 12-inch cube cardboard box with a hinged lid is ideal. It provides the lightness required and also serves as a foundation onto which other structures can be added.

A second feature of the toy is its textural interest. The feel of the toy should be varied and pleasing. This appeal to touch is accomplished by cutting out differently shaped sections of the walls of the box and replacing the opening with other materials. For example, a piece of burlap can be either glued or taped over the opening from the inside. To give the box a three-dimensional effect, small objects such as tiny boxes, bits of old jewelry, empty thread spools, beads, or buttons are attached to the foundation. Do not completely cover the surfaces of the box as other additions have to be made.

The third feature of the toy involves changing its exterior shape by the insertion of moveable objects. A simple technique for achieving this is to slit the box in several places and insert cardboard pieces of different widths through the slits so that they can be pushed in and out by the child. Other objects that can be used to provide movement are cone-shaped spools or cardboard cylinders.



So far we have appealed to the blind child's tactile sense. The fourth important characteristic of the toy is audial quality. Put beads, rice, marbles, bells, or other sound producing objects into the box through the hinged opening. Now, seal the lid. To finish the toy, add a cloth loop that will serve both as a handle and as a hook for hanging the toy when it is not in use.

Meeting the Needs of the Blind-Mentally Retarded at the Pennhurst State School and Hospital

M. HARRIS SCHAEFFER

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Pennhurst State School and Hospital is a state owned hospital and residential school serving 2,957 mentally retarded patients on 606 acres in Spring City, Chester County, Pennsylvania. Begun with two buildings in 1908, it has become a community of 50 buildings, the last patient building having been completed in 1948. A wing was added to the hospital building in 1953 in order to house tuberculosis patients. A school, a hospital, an administration building, a farm, maintenance and service buildings, and patient living quarters comprise the physical plant of the institution.

1,771 males and 1,186 females are carried on the institution rolls. Only three patients are under six years of age; only 131 patients are under 18 years of age; only 749 patients are under 21 years of age; 2,208 individuals are 21 years of age or older. In terms of mental retardation levels, one-half of one percent are deemed to be mildly retarded, 24½ percent to be moderately retarded, 42 percent to be severely retarded, and 33 percent to be profoundly retarded. Thus three-fourths of the patient population is deemed to be severely or profoundly retarded.

Multiplicity of handicaps

Present at the institution are a multiplicity of primary or secondary handicaps. These include nearly every variety of neurological, physiological, and emotional syndrome. That a blind or visually handicapped population existed within the institution was known; that 251 individuals deemed to be mentally retarded and having the additional disability of sight loss ranging from a 30 percent functional loss to total blindness was not known two years ago. As early, or as late as 1960, an initial vision services program was developed by one of the staff psychologists with the aid of volunteers. Under this part-time program approximately twenty patients participated in classroom activities which varied from arts and crafts to braille instruction. Five volunteers provided their services for this fine beginning.

Psycho-Sensory Habilitation Service Established in 1964

□ In the summer of 1964 I had the distinct pleasure of joining the psychology department at Pennhurst. Shortly thereafter a psycho-sensory habilitation services section, encompassing responsibility for adjunctive therapies, vision services, and related instructional programs, was established. I have had the pleasure of serving as section supervisor and as department director since it was formalized into an independent department early in 1966.

Included in the department of psycho-sensory habilitation services is a vision services section which includes three areas of programming: (1) vi-

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sion clinic, (2) vision unit, and (3) classes for the blind and visually handicapped. This should be changed to four programming areas as we can now include as item four, an evaluation unit made possible by the Rehabilitation Services Administration and the joint efforts of the Offices for the Blind and Office of Mental Retardation, Commonwealth of Pennsylvania.

Vision Clinic

☐ The function of the vision clinic is to screen the vision of the institution's patient population through the use of color, field, and acuity tests; to diagnose visual problems through ophthalmologic examination; and to provide surgical and/or optical correction as required. The performance of these functions is the responsibility of a team which includes a part-time opthalmologist, a vision habilitation clinician (registered practical nurse), and an optician. The screening processes, which, aside from the testing itself, include the preparation and maintenance of patient records, is the responsibility of the vision habilitation clinician. Similarly, this clinician follows up the ophthalmologic findings and arranges for out-patient hospitilization and/or the attainment of glasses as prescribed for the patient.

Staffing

Several measures were required to attain a satisfactory level of function for this clinic. First, eye-ear-nose-throat, with one physician attending all areas within a limited period of time, was separated into two clinics—the vision clinic and the oto-oral team clinic. The latter clinic and its services pertain to otolaryngology, audiology, speech and language, and dentistry. Second, a vision habilitation clinician position and new preliminary screening techniques were established. Third, the referral system was centralized and changed to include the regular testing of patients as well as those patients referred by institutional personnel. Fourth, the provision of new glasses and the repair of broken glasses was improved as a service by securing an optician who visits the institution each week. Fifth, but not of least importance, patient records are current and available to all professional personnel through the patient's medical record folder.

Programs for the visually handicapped

During the summer of 1965 the department attained the services of an experienced instructor (supervisor of vision services, himself blind) for the blind and visually handicapped, and an aide. These two individuals developed classes which met four times each week and involved 16 patients. The curriculum was as wide and as varied as the needs of the patients.

During August, 1966, 74 patient beds were made available for the establishment of a vision unit in a portion of the institution's hospital. The establishment of this unit was the outgrowth of a five bed unit for young ambulatory blind patients which our department had established in another area within the hospital.

The present vision unit of blind or visually handicapped individuals is staffed by four aides, an acting coordinator of vision services, attendants, nursing personnel, and medical personnel assigned to the area. The staff initiated programming for the severely visually handicapped and blind that had not heretofore been available. This includes daily living skills such as toileting, feeding, personal hygiene and grooming, bed making, and similar activities as required by the mental status and behavior of the patients. As a part of habilitation services, programming for the development of manipulative skills has recently been initiated. Limited group community activities, tours, or visitations have also occurred. In addition, a number of visually handicapped or blind individuals attended a camp for the blind during the summer of 1966.

Development of Evaluation Unit

☐ The fourth area of programming includes the "Development of an Evaluation Unit for the Visually Handicapped-Mentally Retarded at Pennhurst State School and Hospital" as a Rehabilitation Services Administration Innovation Project. This project is an outgrowth of the apparent patient needs at the institution and the recognition of these needs by the Commonwealth of Pennsylvania's Office for the Blind, and Office of Mental Retardation, the Superintendent, the Director of Psycho-Sensory Habilitation Services, and the Pennhurst State School and Hospital Research and Development Committee.

Purpose of evaluation unit

The purpose of the program is to provide new and expanded services for those institutionalized mentally handicapped patients evidencing the further handicapping and catastrophic disability of blindness in varying degrees. In the process of achieving this objective, it will provide services beyond that which is legally and traditionally required of the institution and in so doing will result in significant improvement in training leading toward vocational rehabilitation of the institution's blind-mentally retarded population. This grant project is an integral part of the overall program development for these patients at the institution. In addition, it is anticipated that Pennhurst will continue to enlarge the scope of the program, to utilize the findings of the project, and to include many blind-mentally handicapped individuals who are presently in the community awaiting institutionalization and to accept transfer of patients from other state hospitals who have the same combination disability. It is anticipated that the evaluation unit will subsequently lead to the opening of the iron gates of the institution to the community at large.

Establishment of Unit to Determine Vocational Potential

☐ The most direct significant outcome expected to result from this project will be the establishment of a unit to determine vocational potentials. It is anticipated that there will be a growth of individual abilities, an increase in functional levels, and an increase in the daily living activities which will permit individuals to move toward gainful occupations. The accomplishment of independence will facilitate participation in the institutional community's activities; however, the end goal of maximum self-realization, vocationally and behaviorally, is deemed to be of primary import to the individual, the institution, and the Commonwealth of Pennsylvania. The establishment of an evaluation unit for the visually handicapped-mentally retarded will enable the institution to determine rehabilitation potential on a formal basis whereas such evaluation was previously lacking or inadequate. Many proper intellectual functioning tests for the blind and visually handicapped have been lacking for purposes of vocational rehabilitation; those previously utilized have been susceptible to gross inaccuracy. No tests of intellectual function have been administered to the blind population and

Intelligence testing

testing of the visually handicapped was last completed in 1957. The development of an evaluation unit for visually handicapped-mentally retarded individuals will alter this situation.

In addition, these individuals will thus be afforded a true opportunity for maximum involvement in the life of the institution and, hopefully, in the life of the non-institutional community at large as productive citizens. It is of considerable interest that no blind patient had ever left Pennhurst State School and Hospital as a rehabilitation candidate until September, 1967. The present proposal as you can see, has implications for all patients at the institution and for those visually handicapped who are institutionalized in residences for the mentally retarded throughout the Commonwealth of Pennsylvania and perhaps the United States.

New services provided by evaluation unit

☐ The establishment of the evaluation unit will bring new services to Pennhurst's visually handicapped-mentally retarded patients. As a result of this program, the Office for the Blind will provide the services of a vocational rehabilitation counselor who will devote full or part-time services as required by the individuals referred to this unit. This counselor will conduct a preliminary investigation which will consist of an initial interview with the referred individual. General medical and ophthalmologic evaluation as well as necessary medical specialty and psychological evaluations will then be secured. Subsequent action will include (1) the determination to close the case; (2) determination to develop a plan for extended evaluation; or (3) determination to develop a plan for vocational rehabilitation services. Under extended evaluation, the individual will continue in the project through workshop and related services for a period of up to 18 months or until such time as a determination can be made of eligibility for vocational rehabilitation services. Under vocational rehabilitation services, the individual will continue in the project until a specific training program or specific employment is provided.

Evaluation and rehabilitation workshop to be established

As a further result of this program development, the unit will attain a coordinator who will inaugurate the first evaluation and rehabilitation workshop at Pennhurst State School and Hospital. The professional worker in this field will act as workshop supervisor, providing evaluative and training techniques for the benefit of the participating individuals. The coordinator will coordinate the activities of associated project personnel. The workshop therapist will provide direct evaluation and training of individuals in the workshop.

Staffing

A psychologist will provide diagnostic and evaluative test services, including job sampling. He will utilize special instruments for the assessment of mental status, cognitive abilities, educational achievement potential, and adaptive behavior. He will provide such counseling services as are required.

A mobility specialist will inaugurate evaluation and training of each referral in the areas of his speciality. He will also provide orientation and physical fitness services which are essential for each individual's capability for independent movement within the institution and the community at large, as well as for vocational programming.

An occupational therapist will initiate programs providing for treatment procedures to enhance the individual's sensory-motor-cognitive skills. This aspect of the program will contribute to the determination of vocational potential and is essentially different from the traditional view of occupational therapy as it so frequently pertains to the use of weaving and basketry looms. The occupational therapy procedures will include an evaluation of eye tracking, eye coordination, and related sensory-motor tasks and skills which become an important part of the individual's cognitive development.

A personal adjustment instructor will provide those services which aid the individual in the attainment of personal hygiene and grooming, community adjustment, and those skills which will lead to greater self-help and independence. This instructor will plan field trips to such public facilities as banks, hospitals, police stations, employment agencies, and so forth on a group and individual basis.

A mobility aide, occupational therapy aide, and personal adjustment aide, provided through grant funds, and a rehabilitation aide, provided by the institution, are essential to assist in the provision of evaluation services on as close to a one-to-one relationship as is possible. The multi-disabling nature of the individuals referred to the evaluation unit makes an approach toward a one-to-one relationship essential.

In addition to the above, the institution will secure and provide the services of a rehabilitation teacher for the blind. This teacher will provide basic educational instruction in the areas of braille, social studies, natural science, daily living facts, arithmetic, music appreciation, language and literature according to the needs and capacities of the individual. The rehabilitation aide will assist with the above program.

Vision unit a living unit

The vision unit, mentioned earlier, will be utilized as living quarters for participants in the evaluation unit and by potential candidates for this unit. Thus, the 74 beds available in the vision unit will be occupied first by 45 patients participating in the evaluation program, and secondly, by 29 patients toward whom habilitation services will be directed in order to provide long range training for future participants in the evaluation program. In addition, the institution will screen its waiting list of over 1200 individuals for visual handicaps and admit those who meet the criteria of industrially blind and mentally retarded. Parenthetically, the first screening has been completed. Working space for evaluation unit personnel and participants is in the process of development. This includes the preparation of approximately 6000 sq. ft. of space in a basement area.

The program will be unique within the Commonwealth of Pennsylvania. First, it will represent the only fully developed program for the visually handicapped in Commonwealth institutions for the mentally retarded. Second, it will represent the first inter-agency agreement between the Office of Mental Retardation, the Office for the Blind, and the Vocational Rehabilitation Administration. To the personnel of these agencies my heartfelt thanks.

Teaching by Television at Homai College

T. V. THOMAS

Mr. Thomas is principal of Homai College, the New Zealand Foundation for the Blind residential school for blind and partially sighted children.

The book was about Siberia and the picture showed a large bear wading into a river catching a salmon. The group of children studied the picture on the screens of the television sets around the room. Their task was simply to decide what they were looking at. The answers varied; the nearest to the real thing was "An old man holding on to something."

This incident illustrates very closely that partially sighted children do not see—as do normally sighted children—and that what they see is seldom explained to them. All the children in the class must have been given animal picture books to look at, at some stage in their lives. When they turned the pages, what did they see? Many partially-sighted children read with their faces very close to the page; they can see a small part of any line of print, a small section of a map or illustration, never the page as a whole. When the map is held where all of it should be easily studied, it becomes a blur. But it is difficult for a child or an adult, to fit pieces of a picture, or map, into a whole, as in a jig-saw.

How the TV Instruction Unit Works

☐ The TV instruction unit at Homai College makes this task possible. Through the television screen the child can study a map as a single shape. Then the details can be selected in turn, and at any moment the whole map brought back again. The details are magnified, "blown up," into easily seen shapes, and then reconstructed, or replaced, into the general outline. The same applies, of course, for pictures, diagrams, pages of print, or sheets of music.

The TV unit has two TV cameras. Both are on fixed magnification of any material placed under it—reading books, maps, drawings, and typed pages. Reasonable sized objects—insects, birds, small animals, plants—these can be shown in close detail. An "electronic blackboard" is also sited under the camera. The teacher can draw, write, work out arithmetic—carry out with ease any operation that is done on an ordinary blackboard. Why is it better than an ordinary blackboard? Why is it necessary? Because these partially-sighted children have difficulty in seeing a blackboard—they have become accustomed to seeing a blur or the back of the head of the child in front. With his individual TV set he can sit as close as he wishes, with an uninterrupted view, with perfect lighting and a clear illustration.

The second camera is trained on a slide and film-strip projector. A tremendous amount of teaching material in all school subjects is available to

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teachers on film-strip. Unfortunately, when a partially-sighted child gets close enough to the screen to see the picture, his body is in front of the projector, and the other children once more cannot see through him. The film shown through the TV camera is clear, each child has his own set to watch. The lesson proceeds with the teacher confident that when a detail in the picture is discussed all the class can see it clearly. Time in teaching is valuable. To be able to grasp an idea quickly through a clear picture or illustration leads to better learning and faster learning.

There are eight TV sets (monitors). They cannot be tuned to outside TV stations, but are instantly tuned to the cameras described above. Another TV set, with 23 in. screen, is provided for tuning to programs from AKTV2. These programs can then be fed into the eight monitors. Programs of an educational nature from AKTV2 may then be watched by a class. Classes at Homai College are usually less than 16 children. It is possible with two children to each monitor, for a full class to study in the manner outlined.

Attached to each monitor are two sound sets—earphones and microphones (one set for each pupil). This allows the teacher to speak to children individually, or as a class, and for children to call the teacher, and to ask questions or give answers. The teacher's panel includes individual call buttons, microphone, volume control, and "talk" button, also switching for "all class" sound or TV program sound.

Instant switching is available from one camera to the other, or from the TV receiver set, to either of the cameras.

New Teaching Device

☐ Teaching by television closed circuit system in a primary school is still very new in the world. The use of TV for helping partially-sighted children has been in operation for several years in a school in the Netherlands, but nowhere else in the world. This system is still in its infancy. It is proving its value, but is so new that its true value will not be realized until it has been used and experimented with by many teachers over a lengthy period. New uses for television are being discovered. Recording of TV programs—similar to L.P.'s in the gramophone world—are being developed. Complete teaching programs will be available to be played at the teachers wish, or the child's needs. (The TV program, "The Prisoner," showed the use of such recordings.) Educational television will some day be available on the same basis as radio programs are today, and with the rapid development of satellites may be provided by other countries than our own.

The future developments will undoubtedly be fantastic. For the present, however, we at Homai College have the responsibility of discovering the best means of helping the visually handicapped see more clearly, and to learn in better ways. The Television Teaching Unit is a magnificent help in this task.

Teleteaching for the Blind

TED R. CARMACK

Mr. Carmack is the director of public relations for the Braille Institute of America, Inc., Los Angeles, California.

Each weekday afternoon at 2:30 p.m., Lillian Brown sits in a tiny anteroom at Washington Boulevard School in Los Angeles and drops nine perforated plastic cards, one after another, into the automatic dialer of a telephone console unit. Immediately the telephones of nine blind students begin ringing and within a few minutes she is teaching a class in braille reading.

Teleteaching, as the system is called, was first started in 1962 as a cooperative project of Pacific Telephone Company and the Los Angeles City School System. Last year there were 637 public school children in Los Angeles participating in the simulated form of classroom instruction designed for home-bound physically handicapped students.

Since a large number of blind adults are also home-bound (by multiple handicaps, lack of transportation, etc.) Braille Institute's executive director, Russell W. Kirbey, decided six months ago to initiate a pilot project, using the system with a selected group of nine students. He believed that several subjects necessary for the rehabilitation of the blind could be taught successfully with the system: braille reading, typing, certain parts of home management classes as well as portions of the techniques of daily living class (learning to organize clothes, identify money, grooming, etc.)

In addition to the basic training courses, there were other courses which the Institute schedules at the request of blind students and which seemed particularly consonant with the system: current events, spelling, languages, creative writing, literature, business law, etc.

Other subjects, he realized, were not so well suited to the program: orientation and mobility, for example, which requires the presence of the instructor who often employs training aids such as a white cane (although some orientation and mobility lecture material has already been given); arts and crafts which require initial guidance as well as special equipment; and home repairs which requires machines and tools as well as the assistance of an instructor.

But there were enough courses on the plus side to warrant an experimental program. And braille reading was the "test case."

Students Dissimilar

Although the nine students in Mrs. Brown's class have vastly dissimilar backgrounds and differ greatly in formal education, she feels that the instruction is definitely effective. She finds that the more advanced students are willing to help the less advanced ones. The console allows "conference calls" or hookups which allow all students to speak or hear her—or to each other as a

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group; it allows her to isolate members for private instruction; it allows her to tie two or more students into a secondary bridge while she works with a beginner; or she can play taped instructions and recordings to one segment while teaching another directly. Lights on the console indicates which students are conversing at all times.

Institute hopes to enlarge program

Mrs. Brown, a credentialed teacher who helped pioneer the work with the Los Angeles school children, finds teaching the adult blind students a bit more challenging since there can be no reference to visual aids. And it is perhaps a little more stimulating since the instruction also provides a needed sociability which is not available to many sightless. "They make friends with each other very quickly," she says. "And they are quick to help each other. They see that someone cares."

Although it was anticipated, the Institute found the therapeutic value greater than expected. Loneliness, a very real factor in the lives of many blind persons, is not completely eliminated. With the advent of teleteaching, however, some of the blind can be expected to feel released from the four-walled prison to which circumstances, or physical disabilities other than blindness, have confined them. "It's a life saver," says the daughter of one student. "My father was so depressed that I began to get really worried. Now he feels has has something to live for."

According to Kirbey, the equipment, which was on loan from the city school system, has definitely proved its value as a teaching tool for the blind. He hopes to acquire a new unit for the Institute in order that the program can be extended to as many as one hundred students during a semester.

Previously a home teacher could manage to schedule only five students a day, approximately once a week. But a teleteacher can meet with up to twenty students each hour daily. Thus the home-bound blind will have an unparalleled opportunity to receive daily instruction from highly qualified teachers in a large variety of subjects and skills.

"If it's a 'life saver' for one," says Kirbey, "it's worthwhile. But think of all the others who will be helped."

In the November Outlook

Two articles on the research and development process and roundups on the 1968 meetings of the American Association of Workers for the Blind and the Association for the Education of the Visually Handicapped (formerly the American Association of Instructors of the Blind).

Current Literature

Associative Characteristics of Blind and Sighted Children to Selected Form Classes, by M. H. Tillman and Charlotte Williams. *The International Journal for the Education of the Blind* (1839 Frankfort Avenue, Louisville, Kentucky 40206), Vol. 18, No. 2, May 1968, p. 33-40. Results of an across-age study to determine the role of severe visual impairment on word associations to selected grammatical form classes. The thirty-five blind children included in the group were from three Southeastern residential schools.

Play Therapy with the Blind, by Constance Avery. *The International Journal for the Education of the Blind* (see address above), Vol. 18, No. 2, May 1968, p. 41-46. The author, who is School Psychologist at the Oak Hill School Branch of the Connecticut Institution for the Blind in Hartford, discusses the adaptation of play therapy to the special problems posed by blind children. She adds brief highlights from the case histories of two such children.

Blindness Seen through Reactions, by Judi Sorter. *The Blind Digest* (The Northwest Foundation for the Blind, Inc., P. O. Box 7003, Seattle, Washington 98133), Vol. 7, No. 5, May 1968, p. 1, 3, 5-6. Miss Sorter, a blind University of Washington senior, delivered this "oral composition" before her public speaking class at the University.

The Partially-sighted School Leaver, by W. Cunliffe. *The New Beacon* (Royal National Institute for the Blind, 224 Great Portland Street, London W1, England), Vol. 52, No. 612, April 1968, p. 87-92. A brief explanation of Heathersett, the Royal National Institute for the Blind's vocational assessment center for blind adolescents, followed by statistics relating to some of the students. The author, who is the Principal at Heathersett, based this article upon an address presented to the Association of Education of the Partially Sighted.

Establishment of the Midlands Mobility Center in England, by Stanley Suterko. *The Long Cane News* (Peripatology Program, Boston College, Chesnut Hill, Massachusetts 02167; Institute of Blind Rehabilitation, Western Michigan University, Kalamazoo, Michigan 49001), Vol. 2, No. 4 [1968], p. 1-12. A report by the Assistant Director of the Institute of Blind Rehabilitation, Western Michigan, on his year's experience in establishing the first nonresidential mobility training center in the United Kingdom.

Concept Development in Preparation for the Cane or Dog, by Robert A. Eisenberg. *The Long Cane News* (see address above), Vol. 2, No. 4 [1968], p. 12-22. The Chief of Mobility Instruction at California State College at Los Angeles, describes a systematic procedure by which the spatial relationships within basic street and city block patterns can be made meaningful to a congenitally blind individual.

Learning What the Blind Can Do—Teaching Them How to Do It, by Caroline Jenkins. *Tennessee Public Welfare Record* (Tennessee Department of Public Welfare, 410 State Office Building, Nashville, Tennessee 37219), Vol. 31, No. 3, June 1968, p. 46-49. Report on the planning and progress of a project entitled "New Programs of Evaluation, Training and Expansion of Job Opportunities and Job Diversification at the A. P. Mills Industries for the Blind, Memphis, Tennessee. This is a three-year project running from March 1967 through February 1970.

Among New Jersey's Services for the Blind, an editorial report. *The Welfare Reporter* (New Jersey Department of Institutions and Agencies, 135 West Hanover Street, Trenton, New Jersey 08625), Vol. 19, No. 1, January 1968, p. 36-40. Information concerning various aspects of the services offered by New Jersey's State Commission for the Blind.

What of the Blind of New Jersey? 1965-1975, by Philip Trupin. *The Welfare Reporter* (see address above), Vol. 19, No. 1, January 1968, p. 32-35. The Supervisor of Vocational Rehabilitation Services of the New Jersey State Commission for the Blind discusses past accomplishments and future plans of his department.

Diversified Collection Aids Students, by Elizabeth D. Freund. *The Seer* (Pennsylvania Association for the Blind, 2843 N. Front Street, Harrisburg, Pennsylvania 17110), Vol. 38, No. 2, June 1968, p. 9-12. A description by its Curator of the Touch and Learn Center at the Overbrook School for the Blind in Philadelphia.

Effects of Complexity and Redundancy on the Tactual Recognition of Metric Figures, by Emerson Foulke and Joel S. Warm. *Perceptual and Motor Skills* (Southern Universities Press, Box 1441, Missoula, Montana 59801), Vol. 25, No. 1, August 1967, p. 177-187. Single issue—$8.00. Research performed at the University of Louisville under a government grant. Equal numbers (24) of blind and sighted subjects were used. The authors feel that their findings point up a need for revision of the braille code to allow for more rapid reading rates and to permit the inclusion of various technical symbols.

M. M. R.

News in Brief

■ Harold Drane has been appointed director of rehabilitation for the Cleveland Society for the Blind. A member of the Society staff for the past six years, Mr. Drane was formerly director of program services. In his new position, Mr. Drane will be responsible for both rehabilitation and casework services.

■ George N. McCrea has been appointed superintendent of the South Dakota School for the Blind, Aberdeen. Prior to assuming this position, Mr. McCrea had been on the staff of Overbrook School for the Blind for 14 years.

■ Paul Duke, a 37-year-old blinded Marine veteran, of Cherry Hill, N.J. received the 1968 Achievement Award of the Blinded Veteran's Association. The Award, presented annually to a blinded veteran who has been outstanding in his chosen field of employment and in his adjustment to daily living as a blind person, was given to Mr. Duke in recognition of his achievements as a systems analyst. The presentation was made at the annual convention of the Blinded Veterans Association which was held in San Francisco in July.

■ A new pamphlet, "The Why/What/How of Accreditation in Services to the Blind and Visually Handicapped," is available from the National Accreditation Council, 84 Fifth Avenue, New York, N.Y. 10011.

■ Dr. Richard L. Masland, director of the National Institute of Neurological Diseases and Blindness since 1959, has resigned to become professor of neurology and chairman of the Department of Neurology at Columbia University's College of Physicians and Surgeons. He will also be director of the Neurological Service, Neurological Institute, Columbia-Presbyterian Hospital, New York City.

Dr. Eldon L. Eagles, assistant director since 1964, has been appointed acting director of NINDB.

■ *Overtones*, a music magazine published in braille by the New York Association for the Blind, will shortly be available in a tape edition if readers respond favorably to the idea. Readers who would like a tape edition of *Overtones* are requested to send a postcard indicating their interest to *Overtones*, The Lighthouse, 111 East 59th Street, New York, 10022.

■ The FIGHT FOR SIGHT, National Council to Combat Blindness, Inc., has awarded $269,734 for the current year for basic and clinical research projects in ophthalmology and its related sciences.

The awards include grants-in-aid, postdoctoral research fellowships, student fellowships, and clinical service research projects.

■ The National Society for the Prevention of Blindness has received a $35,000 grant from the Charles A. Dana Foundation for the production of a film and manual to instruct professional personnel and volunteers in the techniques of vision screening.

■ Aubrey Boyd Tipps, director of field staff for the Texas State Commission for the Blind, died on July 15. Mr. Tipps, who was well-known for his efforts in the field of rehabilitation, had been a member of the Texas State Commission's staff since 1944.

■ Irvin P. Schloss, Washington representative of the American Foundation for the Blind, was elected to a second consecutive term as national president of the Blinded Veterans Association. The election took place at the organization's 23rd annual convention in July.

Other officers elected were Julius D. Morris, national vice-president; Otis Scott, national secretary; Clyde W. Waugh, national treasurer; the Rev. Thomas J. Carroll, national chaplain; and James H. Butler, national sergeant-at-arms.

Coming Events

November 1-5 American Academy of Ophthalmology and Otolaryngology, Annual Meeting, Chicago, Ill.

November 11-15 American Public Health Association, Annual Meeting, Detroit, Mich.

November 13-17 Council of Jewish Federation and Welfare Funds, Annual Meeting, Atlanta, Ga.

November 18-22 The National Association for Mental Health, Annual Meeting, Boston, Mass.

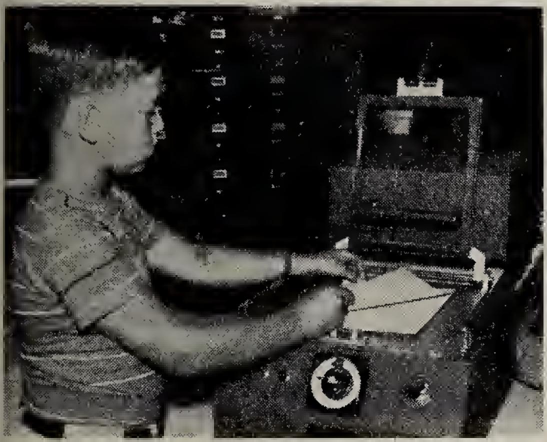
November 20-22 National Society for the Prevention of Blindness, Annual Meeting, New York, N.Y.

December 5-6 National Social Welfare Assembly, New York, N.Y.

January 21-23 Council on Social Work Education, Philadelphia, Pa.

March National Conference on the Aging, Annual Conference and Business Meeting, New York, N.Y.

March 9-12 National Health Council, National Health Forum, New York, N.Y.



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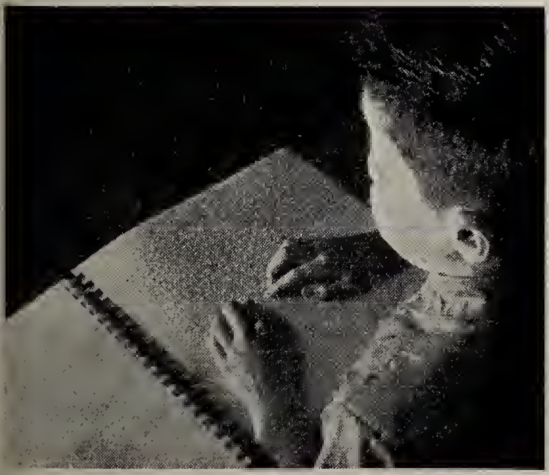

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THE NEW Outlook FOR THE BLIND

Guidelines for Obtaining Funds for Training, Services, and Research
Harris K. Goldstein, D.S.W.
Trends of the Research and Development Process on the Sensorily Impaired—Part One
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AAIB and AAWB Roundups

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Trends of the Research and Development Process on the Sensorily Impaired—Part One

MILTON D. GRAHAM, PH.D.,
LESLIE L. CLARK

Dr. Graham is director of the Research Department of the American Foundation for the Blind. Mr. Clark is director of AFB's International Research Information Service (IRIS).

The following two-part article (Part Two will appear next month) has been adapted from a longer one prepared for Research Bulletin No. 14 published by the American Foundation for the Blind. Because the principal audience is the research community, the authors speak the language of researchers. However, the article offers an excellent summary of the research and development process, and for that reason is printed here. Because it explains so well one of the crucial stages of the R & D process, we are also publishing in this issue, an article by Dr. Harris K. Goldstein that treats the funding process in some depth.

What is the R & D Process?

☐ What is the research and development (R & D) process? We see a number of necessary steps, not always discrete, but certainly cumulative. We see as steps:

1. The posing of a problem to a mind trained in some aspect of scientific analysis.
2. The gradual evolution of an experimental or descriptive design to attack the problem.
3. The presentation of the design for support, financial or in kind.
4. The reporting of interim findings informally, and the presentation of a technically worded final report that incorporates corroborating data.
5. A developmental, or trial, stage that involves adequate training and a formal, controlled evaluation.
6. Techniques for affecting practice.

This is the R & D process from start to finish as we see it and as we will discuss it as we comment on the process in Europe and the U. S.

Step 1: Posing of the Problem

☐ The initial step in the research and development process is a straightforward one. On the one hand, there are problems acknowledged by all to be problems. On the other hand, there are disciplined and trained minds that by nature of their training are curious and creative. The crux of the matter is to bring these together in a meaningful way, that is to say, to pose the problem properly so that the scientist becomes involved, *engagé* (in the fullest sense in which the French use the word). Our experience has been happiest when we pose the problems (or much more likely, interrelated problems) in terms that will rouse the scientist's curiosity.

Arousing scientist's curiosity

We have found that a vague, general approach like, "Wouldn't you like to help the poor blind?" has no impact, whereas a specific problem approach does have. To give an example: in a recent discussion with an internationally known acoustician at the Technical University in West Berlin, we mentioned our interest in obtaining information on the parameters of input data to the brain through two or more senses simultaneously, and explained the relevance of such data for research on the visually impaired. After a lengthy exchange he said that he had been considering collaboration with an ophthalmologist on the medical faculty to experiment with visual and acoustic input with a readout; our assurance that such data would be useful and had not been collected elsewhere moved him to say that he would give the problem priority. He was, we felt on leaving, *engagé.* We felt that we had posed the problem properly to him.

Similarly, when we visited G.F.A. Harding, Senior Research Fellow in the College of Advanced Technology, Birmingham, England, we had a lively dialogue on his projected research project on the learning patterns of blind children as measured by intercorrelations of minimum auditory angle, IQ, school achievement, and behavioral measures. We mentioned some unresolved problems concerning uses of the EEG with blind children and promised to send ongoing research findings of others for his consideration in formulating his final research design.

Motivating the scientist

We tell these stories to illustrate our belief that the motivation of scientists is foremost to the contribution of knowledge, and that if their creative energies can be used toward ultimate solutions of complex and perplexing problems caused by sensory deficits, we will all profit.

The problems of sensory deficit, after all, will need the attention of many more scientists before any partial or tentative solutions can be found. Indeed, we are pleased to report a growing awareness among researchers in our field that much more basic research about the sensory processes needs to be done before more specific or applied research projects can realize their true worth. As a colleague at the Massachusetts Institute of Technology (MIT) commented at the 1966 St. Dunstan's International Conference on Sensory Devices for the Blind, "One day they brought me an engineering problem on a sensory device for the blind. It seemed fairly simple, so I said I'd have the answer in two or three weeks. That was four years ago and now we have a team working on the possible answers!"

His response is typical of technologists and scientists who through their work have become aware of the complexity of problems to be solved in our field. At every specialized conference the participants make it quite clear that there are no simple answers easily arrived at, and that long consistent effort and free flowing channels of communication among scientists and research technicians, particularly in the formative stages of research effort, are imperative if any useful findings are to be expected.

Lack of understanding of R & D process

But if the scientists and research personnel are increasingly aware that sustained effort and free interchange of ideas are necessary, we see no corresponding awareness among *most* personnel engaged in service programs for the visually impaired. There is a general lack of understanding of the R & D process and an impatience that it does not adhere to schedules. There is little allowance of the fact that R & D has its own rhythm and timing, that the questions posed must be in a special terminology, that creative minds cannot be scheduled like workshop production. It is this lack of understanding and intolerance of different ways of work that loses at the very beginning creative minds that might tackle the complex problems that confront us. If the scientist should survive this crucial first step of the R & D process, if the problems are posed to him so that he becomes *engagé*, there are other factors to be considered, as we propose to set forth in the discussion to follow.

Step 2. Evolution of the Research Design

☐ Let us say that the scientist or technologist has become interested with some problem or host of problems that relate directly or indirectly to the blind, visually impaired, or deaf-blind and how they might use their remaining senses better. Besides his curiosity, he brings with him training and experience. He must bring order to conjecture and speculation before attempting research. His first step may be to consult fellow specialists to determine priorities of problems, much as was done by the Union of Organizations for the Handicapped in the Netherlands convening an advisory group under G. Boiten of the Technische Hogeschool at Delft; after much consideration this group drew up a list of needed technical devices for the blind in order of greatest need and within their economic capabilities.

Some techniques

Another technique the incipient researcher may use after consulting his own experience and the literature familiar to him is to visit personally other scientists and research personnel who might have some worthwhile ideas and suggestions. This can be a visit to a laboratory or research facility, or some time taken at a conference for a private meeting; to be effective it is almost always a face-to-face encounter. In such situations, insights that cannot yet be reduced to paper are given full play and the mutual stimulation may cause a researcher to decide whether he proceeds or not, what course he should take, and with whom in related research to keep in constant touch.

Importance of personal interaction

Personal interaction among scientists, technologists, and research personnel is so time-honored a device that it is seldom mentioned, yet in a field like ours where parameters are hazy or nonexistent, it can be crucial. We note with a great deal of satisfaction that within the last few years, face-to-face picking of brains has increased, that specialists of widely varying disciplines have on many occasions sought each others' reactions on problems of the sensorily impaired. We think, for example, of Palmquist of the Institute of Applied Psychology of the University of Stockholm, touring research facilities in the U.S.A. and observing rehabilitation research techniques. Or of more lengthy exposures such as the two years spent by Cohen of Northwestern University Medical School (Chicago) at the Burden Neurological Institute in Bristol, England.

The amount of interaction among specialists in this formative state of evolving a research design has increased so markedly, that the device of the whirlwind visit to several major conferences and institutions in three months no longer has the meaning that it had when researchers in our field were few and far between and largely unknown to each other. The small conference of specialists now seems to be a more efficient way of inducing interactions among scientific, technological, and research personnel.

Besides personal confrontation, the other time honored device for generating new ideas is the printed page, or to be more encompassing, the scientific information service (such as the International Research Information Service).

In the formative stage of examining possible ideas and concepts that will contribute to a formal research design, the researcher makes use of all sources of concepts and data, written or spoken. Then he "freezes" a tentative research design, a formal statement of aims and procedure that may be reformulated as the research progresses.

Step 3. The Obtaining of Support

☐ Once the scientist, technologist, or research technician has come up with a viable research plan, he faces the necessity of obtaining support to carry out the work. This support may be in cash, or in kind; it may be for a short period and renewable on reapplication or it may be long-term; it may be from one or multiple sources. Whatever its character, it is the lucky researcher indeed, who does not get entangled in the administrative interpretations of laws, regulations, and traditional practices that await him unless he is wary. Since all research in a sense involves the disbursement of *risk* capital, it is understandable that some financial safeguards are necessary, but the extent to which they are sometimes carried can only be called absurd and self-defeating.

The fortunate researcher arranges with his peers the necessary facilities, manpower, and perhaps funds in an academic or research setting. The work of Linvill at Stanford University (Palo Alto, California) and of Winkel at the Technical University of West Berlin are examples of this kind of support. It has the advantage of coming from peers who understand the R & D process, if not necessarily the specific problem.

Seeking Outside Funds

☐ If the researcher must seek outside funds (and most do since research is expensive) he can run the gamut of administrative and bureaucratic processes with unpredictable results. Private organizations probably offer the friendliest ear. St. Dunstan's, an organization devoted to the welfare of the British war blind, has sponsored extensive technological and psychological research on mobility devices; organizations for the war blind in other countries might well follow this lead as the numbers of the war blind needing help dwindle. An American "family" foundation gave an unrestricted grant for a study of leisure time activities of blind adults; it happened that one of the family was blind. In Sweden, a wealthy man regaining his eyesight by surgery contributed substantial funds to a rehabilitation research program. These are examples of private sources that the researcher seeking funds may find hospitable, but unfortunately their number is few.

Private sources

Other private sources of funds, also relatively modest in number, are commercial or industrial concerns. Negative practices exist among some commercial or industrial sponsors of research involving the short-cutting of the R & D process, like putting a device into production before adequate evaluations (and possible redesign) of it are made. The tendency to exert proprietary rights to exclude competition still occurs occasionally. Generally, however, large commercial and industrial concerns acquainted with the process are sympathetic to the risk-taking nature of R & D, and particularly so for something so complex as the effects of sensory deprivation.

Government agencies

Not so government agencies which sponsor the great majority of research. Too often they consider knowledge of the R & D process unnecessary. In this country at least, so-called lay members are prominently represented on the fund-giving councils; other members are specialists who may or may not have any knowledge of sensory deprivation. These groups often reject a research proposal as "not within our purview." An internationally known clinic once applied for research funds to study therapeutic techniques for handling severely emotionally disturbed blind children. One federal institute rejected it as a "mental health" project, while another within the same agency rejected it as a "blind" project, and only after a year and a half was a combined token grant made. Even if these jurisdictional disputes are understandable, it is difficult to excuse another federal agency which changed its application forms three times in one year, each time requiring resubmission on the new forms; one proposal, was thus delayed about two years before it was finally rejected as "not in our purview."

These examples of bureaucratic pettifoggery exist in practically every country. In France, the researcher wishing to obtain government funds for a project involving the limitations of the EEG as a diagnostic tool for examining blind children must secure the approval of *three* ministries; if by some chance these three ministries agree, then the delegate from the ministry of finance most likely objects, and the months of efforts are lost. (This is not an aprocryphal story.)

Long-term grants more desirable

Despite the problems, the grant-making machinery might work better if long-term grants were the rule instead of the exception. Take the example of basic research projects. Basic research requires long spans of time and effort, not year-to-year progress reports made for disbursers of funds. We can do no better than to quote this warning in an editorial entitled "Basic Research in Peril" from the New York Times of August 12, 1966, which said in part,

> It is understandable that politicians want quick results, preferably in time to provide useful material to be included in campaign speeches before the next election. But scientific progress has its own laws and its own tempos and it would be perilous for the nation to ignore them.
>
> Basic research provides the capital fund of scientific knowledge on which applied researchers draw to give society a rich rate of interest. But if that capital fund is not expanded or is increased too slowly, the time will come when applied research too will be frustrated for lack of fundamental new ideas and new knowledge.

We know also that there are conspicuous examples of government support providing a minimum of administrative and bureaucratic hinderance. We are happy to note these positive examples of governmental sponsorship of research and we hope they can be attributed to some knowledge of the R & D process on the part of the sponsoring agencies.

Part Two of this article, which deals with the dissemination of research findings, will appear next month.

Guidelines for Obtaining Funds for Training, Services, and Research

HARRIS K. GOLDSTEIN, D.S.W.

Dr. Goldstein is professor of social work, School of Social Work, Tulane University, New Orleans, La.

The procedure for obtaining grants to finance demonstration projects, training programs, and research is considered inscrutable by many social workers and beyond their mastery. At the same time, many federal agencies and private foundations are in control of funds that the administrators are eager to grant for the purpose of helping more clients of social agencies. Although such funds rarely are available for continuing or expanding direct services, considerable financing *is* available for training programs, for the demonstration of novel and creative ways of helping clients, and for research aimed at solving practical problems of an agency or obtaining generalized knowledge. In this article an attempt is made to dispel some of the mystery associated with the procedure, and several how-to techniques are proposed.

Common Misconceptions

☐ Many social workers have the mistaken notion that they must be extraordinarily clever or skilled at "grantmanship" in order to obtain funds. They ignore the fact that both the granting sources and the seekers of grants have a common basic goal: to improve service to clients, either directly through training and demonstration activities or indirectly through the knowledge produced by research. It must be recognized, however, that any granting source must approve or reject an application for financial help according to whether the application complies with its policies. Flexibility on the part of the agency seeking funds, evidenced by a willingness, within appropriate limits, to modify an original goal or purpose to suit the policy of the financing agency, often increases the possibility of obtaining money. Such modification, which does not disregard the original agency goal, serves the common purpose of both agencies and is simply a pragmatic solution to agency needs rather than an effect of "grantsmanship."

Selecting a Source of Funding

☐ The frequently expressed complaint that grants are difficult to obtain is likely to be based on the assumption that less than the needed amount of money is available, that the writing of requests requires specialized skill, that granting agencies consider requesting agencies guilty of making inadequate proposals until they are proved innocent, or that knowing the right person is a prerequisite to obtaining funds. None of these assumptions fits the known facts about funding agencies. Each year millions of dollars are unexpended because no one asks for them. Other large amounts are not awarded because grant requests are sent to the wrong agency—wrong in the sense that the agency policy does not permit financing the request, regard-

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less of how well it is written. . . . Some agencies are overwhelmed with requests; others receive almost none.

Obviously, an agency maximizes its chance of success by soliciting funds from a source that is not already burdened with applications. Again, this solution is a practical one and not the product of grantsmanship. Grants, awards, or contracts may be obtained from literally hundreds of sources, by far the greatest number of which are private foundations. One reason some well-known sources get more than their share of requests is that there is lack of general knowledge about sources of funds.[1]

Writing a request for funds

The technical knowledge and skill needed for writing a request depends somewhat on the kind of grant sought. Some technical consultation may be needed for research grants, but the writing of requests for training and demonstration funds should be within the competence of the average practitioner. Technical jargon is not only unnecessary but undesirable. A straghtforward presentation of objectives, plans for achieving goals, and the manner in which success is to be evaluated are the basic requirements of most fund sources.

Funding agencies want as many applications as they can get in order to select the most worthwhile. If errors in judgment have been made by these agencies, they have been the result of encouraging more requests than can be financed. Occasionally encouragement to submit a proposal had been given to a person who is not competent to carry out a project, but this kind of error stems from lack of knowledge of the person's ability. Whether the person making the request is known to the granting agency on a personal basis or by reputation is of little consequence, however, in making a dedecision to grant funds. Granting agencies obtain information on the competence of the proposed project director.

Preliminary Steps

☐ The most common reason for rejection of a request for funds is incompatibility with the funding agency's policy. One of the first steps, therefore, is to determine whether the proposed goals fit funding agency policies, and if they do not, whether they can be modified. Statements of policy under which money is awarded may be obtained from many funding agencies through written request. Such statements usually indicate whether funds are available as grants, awards, or contracts, each of which may be given under slightly different policy conditions. Progress in obtaining funds is facilitated when the request for a policy statement is accompanied by a brief explanation of the proposed training plan, demonstration project, or research activity and a request for a reply about the suitability of the proposed activity. An unnecessary step may be avoided by also asking for application forms.

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[1] Names and addresses of federal agencies that finance various kinds of projects, as well as a statement of their funding policies, may be found in a pamphlet periodically issued by the Social Legislation Information Service, 1346 Connecticut Ave., N.W., Washington, D.C. When requested to do so, individual federal and state agencies send statements of policy and conditions for funding grants. Information on voluntary agencies that may serve as fund sources may be obtained from the Foundation Library Center, 444 Madison Ave., New York, N. Y. 10022.

An example of the kind of letter that may be written, including a statement of the proposed activity, is given below. Since most grants are made to agencies, organizations, schools, or universities rather than individuals, requests should be written on letterhead stationery and signed by either the agency director or the person proposing to manage the grant, designated by financing agencies as the project director or principal investigator. In addition to a statement of the agency's proposal, the letter should include information about the following points: any previous agency activity that is related to the proposal; the means by which effects or effectiveness are to be tested; the approximate starting and finishing dates; and the approximate cost. The last point is the least important and may be omitted when there is uncertainty about it.

A sample letter

> Our agency is giving consideration to the training of individuals to provide group counseling services to mentally handicapped youths for the purpose of increasing their employability. The training group is to be composed of such persons as businessmen, teachers, and ministers. We have done some previous work in developing a training plan for volunteers in our agency and are now seeking funds to expand these efforts. We propose to recruit and train a number of persons, such as those mentioned above, and compare their effectiveness as employment counselors to mentally handicapped youths with the effectiveness of a matched group of untrained volunteers.
>
> We expect our project to require about two years and to cost about $18,000. The proposed starting date is about six months from now.
>
> You may want further details before making a firm decision about the project, but if the proposal appears to fit your agency's funding policy, please send a statement of your policy and the forms to be used for an application.

Proposal letters may be sent to several funding sources

The proposal stated in the sample letter is the kind that may be sent to a variety of funding agencies. For example, an agency supporting demonstration of, training in, or research about group counseling; an agency dealing with handicapped individuals; an agency supporting psychiatric services; and an agency emphasizing demonstration services to children and youth are all potential sources of funds. Copies of the initial letter may be sent to all of them at the same time. A decision to make a formal application may then be made on the basis of the replies and policy statements.

It is preferable to make such inquiry rather than to attempt to write an initial proposal *in toto* and send it to a possible fund source, because time and labor are saved for both agencies. Although some beginning conceptualization of the project must precede the proper phrasing of the proposal (two or three sentences, such as are in the sample letter, may require considerable discussion), less conceptual effort and technical skill are required than for stating the complete proposal.

Making the Application

□ When a proposal appears to meet the requirements of the funding agency, an encouraging reply is generally sent to the requesting agency with a suggestion that an application be made. It must be remembered, however, that funding agencies prefer to have as many applications as possible and encouragement to submit an application does not necessarily imply that the request will be granted. In some cases, a suggestion is included in the

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What kind of funding plan?

letter to the requesting agency to contact the funding agency's regional or local representative. The decision about whether a request should be made for a grant, an award, a contract, or some other kind of funding plan is related to the decision about selecting the agencies to be solicited. The policy statements provide the information needed to make the decision. In general, contracts provide greater flexibility in spending money, but objectives must be reached within the amount awarded for the contract. Grants provide opportunities to solicit additional funds, but supplementary appropriations are by no means guaranteed. The funds obtained through grants must be used rather strictly for the specific purposes mentioned in the budget, and any leftover funds must be returned to the granting agency.

Small grants of up to $10,000 (often called planning grants) may in some cases be obtained to pay for the writing of a request for funds for a relatively large project. These grants are necessary only for relatively complex problems that are to be researched or for complicated training or demonstration plans. A small amount of money—$100 to $1,000—for the cost of consultation on technical aspects is useful and may often be allocated from the agency budget or secured from a local funding source.

The Content of Funding Requests

☐ Federal agencies financing training, demonstration, and research require applicants to follow an outline, the number of details of which differ. Most of the large private funding sources also specify the manner in which a grant request should be written. Needless to say, instructions should be read carefully and followed as much to the letter as possible. Frequently requests are turned down because the required procedures have not been followed. The approximate length of the funding proposal has been decided upon in many granting agencies and should, of course, be honored. The length may vary from three to more than 50 single-spaced typed pages. Many grants have been given in cases in which the request was contained in five to 10 pages.

When no outline is obtainable, the following points should be covered:

Goals

1. Objectives or goals: The objective for which the funds will be expended must be clearly stated. A general statement, followed by several specific statements, is desirable when more than one objective is proposed. Vague statements, such as "to help persons in a neighborhood to function better," generally are not satisfactory; statements of objectives should be in operational terms.

2. Significance of the proposed project: Essentially this point is a justification of the request for funds or an explanation of why the financing agency should spend money for it.

Review of literature

3. Review of literature: Occasionally the preceding item may be combined with a review of literature, but whether or not it is dealt with separately, knowledge of other agencies' programs for training, demonstrations, or research should be evidenced. At the same time, the appropriateness of the requesting agency's proposal to existing knowledge should be pointed out. Research literature should be emphasized when a research grant is solicited, training literature when a training grant is solicited, and so on.

Method of procedure

4. Method of procedure: The section that deals with the proposed procedure is the most important part of the application, since it describes the method to be used in reaching the objective. It may be written most successfully in chronological fashion, starting with the first step, then continuing to the second, and so on, using appropriate topical headings. Such obvious details of the procedure as plans to hire personnel once funds are available may, of course, be omitted, but other important steps should be given in considerable detail. The granting agency's policy statement usually specifies the length of grant proposals and should govern the number of details that are given.

When the request is for a training grant, indication should be given of the way in which the training plan is to be developed or which training plan is to be used; the personnel to be trained; the place in which training is to take place and by whom; and the method by which the program is to be evaluated. A research grant requires a description of the kind of study; the particular questions or hypotheses that are to be tested; the data source and the method of data collection; and the method of data analysis. For training and demonstration grants, funding agencies usually expect a proposed plan for evaluation of success of the training and demonstration; for research grants, a plan for analysis of the data and presentation of findings is anticipated.

Engaging a consultant

The fee for the services of a consultant, discussed earlier in this article, may be a valuable expenditure for the writing of the method of procedure. Two kinds of consultants are available, and one or both may be used. Content consultants are helpful for training and demonstration grants because of their expertise in content areas. Research consultants assist with research proposals and with evaluative aspects of the other kinds of requests. Consultants may usually be found through schools of social work, social welfare planning councils, or regional and national agencies.

Personnel and facilities

5. Personnel and facilities: Information should be given about the kind of personnel to be employed and the facilities to be used for the project. Such description provides one basis on which the funding agency may determine whether the proposal is feasible. Thus, the application should include statements about readily available personnel and facilities, the number of persons and the nature of the facilities already committed to the project, and the arrangements definitely assured if the funds are secured. The identification of the person in charge of the project and evidence of his competence are especially significant. The availability and competence of the proposed project director are often critically important in getting funds.

Budget

6. Budget: All funding agencies require a budget. Some policy statements indicate categories to be used in itemizing fund requests, and some do not. In general, the budget should show the division of the total requested amount of money into five categories: personnel, supplies, equipment, travel, and miscellaneous. Enough information should be given to justify the total allocation for each item and to show how the total was obtained. For example, employment of a part-time director working one-

third time at an annual salary rate of $12,000 justifies the allocation of $4,000 for his salary. In the budget for a research grant $2,500 for interviewing may be justified by a statement about a plan to conduct 500 interviews at a cost of $5.00 each. Salaries and compensation are generally expected to conform to the prevailing salary ranges of the community in which the funds are to be expended, but some premium salaries may be paid to attract persons to relatively short-term, temporary projects.

Ensuring an adequate budget

There is no provision in most funding agency policies for "unforeseen contingencies." Considerable care must be taken, therefore, to ensure the adequacy of the budget request to meet agency needs. One way of assuring such adequacy is visualizing the steps that will be taken after the funds are received, going through the first step, the second, the third, and so forth. When each step is visualized in this fashion and the cost of each step is determined, an accurate estimate of the cost of the entire project may be made. Consultation with persons experienced in this kind of budgeting is helpful.

7. Timetable: Some funding agencies ask for a timetable. A timetable helps to show the feasibility of the grant, not only to the funding agency but also to the agency requesting the grant. It should cover the proposed starting date for the activity and the completion date, but it need not include a time schedule for every small part of the project. Allow time for the granting agency to act on the request in advance of the starting date.

Screening, Evaluation and Disposition of Requests

☐ The time required for a decision about a request for funds may be from a few weeks to several months, and less time is usually required for private than for federal funds. A delay of from several months to almost a year should be anticipated by the requesting agency personnel, therefore, before grants are acted on. Delay is caused by the number of grants funding agencies receive, the time of year during which funds become available for grants, and the many steps through which grant applications must be taken before being approved or rejected. The time factor may pose problems because the enthusiasm that is generated by the request may dissipate or carefully developed community interest in the project may wane. Such problems must be dealt with, but they are outside the scope of this article.

Evaluation Process

☐ Procedures for screening applications vary to a great extent. Some are screened by individuals in the funding agency, and others are evaluated initially by a committee of either agency employees or outside consultants or both. Sometimes the screening is done by a small group or committee and then by a larger one. Some applications are acted on at the time of screening. In wording the request, staff members should keep in mind that not all requests are screened by social workers, and approval or rejection is usually not decided upon by a group or committee made up entirely of social workers. Some committees have lay members, such as businessmen, and other committees are composed of members of other professions.

Visits from funding agencies

As part of the evaluative process, a member or several members of the funding agency staff may visit the requesting agency to interview the persons who propose to carry out the project, to look at the physical facilities available, and so on. Such visits are part of the study of the feasibility of the project. The funding agency staff members may ask questions about the contents of the proposal, with the intention of clarifying questionable or inconsistent aspects. A visit of this kind is evidence that the proposal is considered sufficiently acceptable to warrant such action, although some agencies make visits on a more routine basis than others.

Frequently the request for funds meets with neither outright approval nor outright rejection; instead, alternatives are offered. In some cases, approval is given after budget negotiations have taken place. The negotiations are as likely to stem from a funding agency suggestion to increase the amount of requested funds as they are from a suggestion to reduce it. Both agencies share the objective of making sure that the grant is carried out properly once it has been negotiated.

Different kinds of approval

☐ Approval with a low priority is one step lower than outright approval and funding and indicates that the possibility of immediate funding is smaller. Conditional approval is another possibility and means that to obtain funds the requesting agency must meet prescribed conditions. The conditions may involve obtaining a better-qualified director, developing a better plan for the evaluation of the outcome of the project, and other such measures. The response may be rejection with the recommendation that the request be resubmitted in a modified form, indicating some interest in the topic but not approval of the proposal as submitted. Since one of the most common bases for rejection is the failure of the request to fit the funding agency policy, the rejection may be no reflection on the worth of the proposed activity. In fact, excellent training plans, demonstration projects, or research grant requests may fail to be approved, even though they command much respect for their creativity, feasibility, and completeness, simply because they do not fit the funding agency's policy. Another common reason for lack of approval is the vagueness of the proposal. A "shotgun" approach, which proposes to do a great deal and shows widely scattered objectives is often less favorably considered than one that is specific and definite.

Questions about the feasibility of the project, such as availability of staff and facilities, may be the cause of rejection. For example, some requests require a larger staff than can possibly be recruited or physical facilities that are too expensive, unavailable, or impractical. A decision by the funding agency that the proposed project director is not competent in the area of service is another important reason for failure to receive approval of a request. The review of literature may fail to show that the project director has adequate knowledge of the subject. It may indicate that the person proposing the project has limited experience for a project of the size requested. Furthermore, the project director may be an expert with considerable experience, but his experience may have been in a field not particularly related to the activity for which funds are asked.

Explanations of rejections can be helpful

Rejection does not necessarily mean that all is lost. Although the reason is usually not provided routinely at the time of rejection, an explanation of why the grant request was not approved may be obtained from most funding agencies. This explanation may help the agency to resubmit the request either to the same or to another potential source of funds.

Stepping Back to Get Ahead in Career Planning

BENJAMIN J. PUMO

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"What's done cannot be undone" (*Macbeth* Act V, Scene I).

The fate of the thousands of inappropriately employed and unemployed blind or partially seeing men and women may not be as devastatingly conclusive as that of Lady Macbeth, but it can often be almost as tragic. Not because it cannot be undone, but rather because its undoing can be so complicated and its avoidance is so simple.

From Biblical days through Shakespeare's era, and to the turn of this century, the misfortunes of blind persons passed from begging though public charge to protective dependency. During World War I, a few blind workers were found in routine industrial inspection jobs. By the thirties some had made their way into the vending stand operation business. World War II saw the blind worker move into a wider range of jobs in industry; a few achieved entree into the professions of law, music teaching, and counseling. Over the past 20 years, however, the blind have gained limited entry into a wider variety of occupations; access prevented mostly by vision acuity needs and archaic employment policies. Unfortunately, these greater opportunities are not being brought to the attention of blind persons to any noticeable degree.

Inadequate Knowledge of Working World

☐ How many blind and partially seeing clients grope their way through the vast constellation of rehabilitation offices scattered throughout the nation enshrouded in a curtain of ignorance about the working world? How many are smothered by parents, siblings, friends, or relatives with well-meaning, yet harmful, attitudes of over-protected dependency? What numbers of them have been misled by dedicated and sympathetic teachers lacking in the knowledge that an occasional failure experience does not necessarily crush the blind student's opportunity for eventual successful achievement in the world of sighted competition? How many visually handicapped men and women find themselves in dead-end occupations, not suited to their best interests or capabilities merely because they or their counselors were not able to view the vocational opportunities with adequate time for analytical thinking and perspective? How many—We do not know, nor do we expect to find out beyond the knowledge of our experience. The number is too great and the problem too urgent to be passed over in a cursory way. Parents, teachers, counselors, public and private agency personnel and, most of all, the blind persons themselves must gather their forces to identify the positives, to search out the negatives, and to undertake a full-scale attack for their solution.

Basic Causes of Blind Persons' Vocational Problems

☐ Before attacking the problem of inadequate and inappropriate vocational achievements of blind and partially seeing persons, it was necessary to examine, evaluate, and analyze the basic causative factors. First, blind persons do not make themselves aware of the need for vocational planning until such time as they become directly involved in the competitive world of reality. Second, administrative demands, cumbersome recording procedures, and pressures of oversized caseloads too often prevent the vocational rehabilitation counselor from communicating adequately with his client. Good communication is essential to provide him with sufficient knowledge on which to base the selection of his lifetime occupation. Third, families and persons not directly involved in the vocational counseling process are, generally, unaware of the variety of occupational opportunities available to visually handicapped people. Four, interagency and interdisciplinary interests and priorities stifle free interchange of information and inhibit coordinated efforts to assist the client to achieve his most rewarding goal. Last of the major areas of concern, but certainly not least, is the lack of understanding on the part of the general public and on the part of the employer of the real values inherent in the employment of a selectively placed person regardless of emotional or physical impairment.

The "Careers Unlimited" Program

☐ We then developed and executed a program entitled "Careers Unlimited," using a three-pronged approach directed to the solution of the problems mentioned above. We recognized that this program can only begin to resolve some of the difficulties, and that other programs aimed at the diverse sources of the difficulties must follow. We recognize that the tremendous demands being placed on the overburdened vocational counselor make it virtually impossible for him to assume this additional responsibility. Unfortunately, the counselor's day-to-day case service demands prevent him from stepping back in his overall planning to develop an appropriate mechanism to insure that his client will be equipped to formulate his own most logical vocational plan. The client should have some workable knowledge and feasible objectives in mind by the time he actually applies for vocational rehabilitation.

Where responsibility lies

Therefore, we have determined that the main responsibility for this type of broader client preparation lies elsewhere. It remains with the agency, institution, or individual having access to the visually impaired person at the time of onset of blindness, to assume this responsibility. Those agencies that are involved in adjustment programming, or educational development, should be best equipped to fulfill this function. As a private agency concerned with this kind of service to blind persons, The Metropolitan Society for the Blind elected to undertake the primary responsibility for this program with cooperative assistance from the Michigan State Division of Services for the Blind.

It was our purpose to step back to the period before the climax of vocational selection and pick up the challenge at an earlier, more formative, stage of personality development. Our objective was to help formulate positive action before negative forces become an integral part of the personality. This program was designed to step back to the early adolescent years. It is necessary that future programming be directed to an even earlier age group, since so many aspects of the adult personality are developed in those years. The community, the employer, the educator, the parents of the blind child, and the blind person himself, are plagued with blind stereotypes. Though it is impossible materially to alter stereotypes, we must make every effort to modify these concepts to more acceptable, realistic, so called normal, images.

Objectives of Program

☐ The three basic objectives for which the program was developed are: (1) dissemination of information; (2) community involvement and community organization; (3) program development for the blind student enrolled in the public school.

1. Dissemination Of Information
   The types of information disseminated fall into several categories, but mainly:
   a. providing the blind and partially seeing student with information regarding occupational opportunities,
   b. acquainting workers for the blind with a more realistic approach to their ultimate objectives, and
   c. giving the employer a greater perspective in terms of abilities of the blind and partially seeing.
2. Community Involvement And Organization
   To accomplish our purpose of community involvement, we drew participants from a total of 37 agencies and organizations. We included people from five of the state's leading universities, seven state agencies, five rehabilitation centers, seven major public school systems, one national agency, one private school, and 11 private business, industrial, and labor organizations.
3. Program Development for the Blind Student Enrolled in the Public School
   While many schools for the blind have undertaken career development programs, public schools have, to our knowledge, never undertaken this type of information series.

Preparation of Program

☐ To formulate this kind of positive action program required a tremendous amount of leg work. It began with the development of a general program outline. The program was designed to include as many aspects of the problems mentioned above as might be conceivably incorporated in a one-day session. It began with registration at one p.m.; a general session at two p.m.; a series of workshop sessions that adjourned at 10 p.m. There were 43 persons on the program with almost 300 in attendance. Attendance was almost equally divided among three groups: blind and partially seeing students; parents of blind students; and educators and counselors of blind persons. It is gratifying to be able to report that the program proceeded with a minimum of confusion. We initially approached this situation with considerable skepticism and, perhaps, therein lay the key to its success.

The program began with the usual welcoming and keynote remarks, followed by an address entitled, "Selecting a Realistic Vocational Goal," and closed with an address entitled, "Recognizing Your Ability." These two talks were designed to set the stage for the following sessions and to stimulate those in attendance to participate actively.

Workshop sessions

The workshop sessions consisted of five separate panel presentations. Two of the panels were concerned with "The Blind Worker in the Professions"; others were, "The Blind Worker in Industry," "The Blind Worker in Private

Enterprise,'' and ''The Blind Worker in Sheltered Employment.'' The persons in attendance had, by previous arrangement, indicated their individual preferences and were directed to the most appropriate workshop session. These sessions were repeated twice in order to make it possible for each person to attend his first and second choice panel. The panels were comprised, for the most part, of five blind persons in the specific category of employment being discussed; each panel had a chairman and a resource expert to assist in answering questions from the audience.

Dinner speakers

Dinner speakers presented the following topics: (1) a safety director from one of the large local companies discussed ''The Blind Worker as an Untapped Resource for Management,'' (2) a union representative, ''The Blind Worker Can Comply With Rules and Standards of Labor''; other topics discussed were ''A Blueprint for Career Planning,'' and State-Federal services to the blind. The last workshop session was divided into three panel groups directed primarily to the parents of blind children, the blind and partially seeing student, and the teacher and counselor of the blind. The title of the first group discussion was ''A Realistic Appraisal of Your Child.'' The title of the section directed to the student was ''Orientation to the World of Work.'' The title and discussion of group three was ''Evaluating and Training in Accord with Aptitude.''

Laying the Groundwork for the Program

☐ In laying the groundwork for the ''Careers Unlimited'' program, it was necessary to make personal contacts with directors of special education in the areas served coupled with visits to most of the schools where blind students were enrolled. The visitations were well received and special education personnel were anxious to lend their support to the program and see to it that blind students, parents, teachers, and counselors were encouraged to attend. The formal announcements were sent out to the various education personnel and they in turn forwarded them to the appropriate personnel within their own areas. The original plan was to utilize public media, but it was soon found that the previously mentioned mechanism was more than adequate to stimulate interest and participation on the part of the groups of persons we were trying to reach. A conference site outside of both the public school and the state school for the blind setting was selected purposely in order to eliminate any manifestations of philosophical differences. For this reason, a university setting proved extremely satisfactory. As the result of a follow-up, it was learned that a daytime meeting would be preferred to the afternoon-evening program. It was expected that the out-of-town people would prefer the evening session. However, we found it was they who requested a change to a daytime schedule.

All announcements included self-addressed reservation cards. The approximate out-of-pocket cost to the supporting agencies for the entire program, excluding the work planning time, was $1,100. This included rent, mailing and distribution, student dinners, and printing. This cost was shared equally by the Metropolitan Society for the Blind, and the Michigan State Division of Services for the Blind.

Reactions of participants

Just about every one of the 43 participants representing 37 different agencies and organizations seemed extremely pleased with the opportunity to take part in this program. The approximately 300 who attended appeared to welcome the information presented to them as determined by a follow-up study in which they expressed their individual complimentary opinions and almost unanimously requested that institutes such as this be regularly scheduled. It should be noted that particular emphasis was given to the fact that specific occupations discussed were being presented, not necessarily as answers, but rather as guidelines to encourage the broadening of vocational objectives. Special stress was placed upon the need for educators, parents, and students, to work together for more adequate personality development and gathering of practical occupational information at a much earlier period in the life of a visually handicapped person.

Diversity of participants an asset

It soon became apparent that the drawing-in of participants and resource persons from this large number of agencies and organizations representing such a diversity of discipline achieved a two-fold purpose. First, and most obvious, it brought to the conference a wide variety of experience and a broad scope of knowledge. Secondly, and less direct, the act of having to participate in this type of program resulted in many of the participants having to research the problems inherent in vocational rehabilitation of blind persons. This consequently helped them to reorganize some of their own thinking and gain better insight into their solution of the problems of blind persons.

Only Pollyanna could conceive that this one simple mechanism might constitute the proverbial rose colored glasses for all persons concerned to solve the multi-faceted problems of today's blind persons. It does, nevertheless, serve as one of many necessary new approaches to the very difficult problem of overprotective dependency that our heritage has created. Historically, blind persons have been cloaked in helplessness and restrictive dependency. It is ironic to note that in this modern day of the computer, the jet, and color television, many blind persons and workers for the blind fail to take positive action and tenaciously maintain their unreal stereotypes.

"Careers Unlimited" only first phase of program

The development of the "Careers Unlimited" institute was the first phase of a series of new programs designed to assist the blind and partially seeing youngster and adult to step out ahead of the moment of vocational selection climax; to enable him to better utilize his time for sound planning and, therein, avoid clutching at straws in the wind or, perhaps, even spending years trying to undo much that had been better not done in the first place.

Report on Visual Acuity Available

National estimates of monocular and better monocular visual acuity compared with binocular acuity of adults aged 18-79 years are contained in a new report from the National Center for Health Statistics. These estimates are based on findings of the 1960-62 Health Examination Survey which was designed to determine the prevalence in the U.S. adult population of certain chronic diseases and other health characteristics. Acuity test findings are also compared with information on visual impairments obtained from previous studies.

Copies of the report, "Monocular-Binocular Visual Acuity of Adults: United States, 1960-1962," may be purchased for 30 cents each from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Recreation Concepts for the Adult Blind

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Recreation is a basic human need. For the blind as well as the non-disabled, recreation contributes to the ability to live in society and to the capacity for maximum enjoyment of life. Therapeutic recreation concepts are basic to all recreation services regardless of the setting, and contribute to the overall education, rehabilitation, and growth of the individual.

This article is concerned with how therapeutic recreation concepts help the blind person grow and develop his maximum potential for self-direction, self-determination, and personal independence in recreational pursuits and experiences. We will specifically be concerned with the attitudes of both workers and blind people and how these attitudes directly affect the goals of recreation programming and determine the extent to which the blind person can participate successfully in socio-recreational experiences.

Goals of Recreation Programs

☐ Independence and self-determination are necessary and desirable in a democratic society. In recreation these terms mean that one is motivated, skilled, and able to adjust and function without extensive assistance from others.

Goals go beyond immediate satisfaction

Often, happiness and fun—immediate satisfaction—are presented as the goals of recreation programs. But the therapeutic recreation worker is not only concerned with immediate satisfaction; he also plans services to meet the educational and developmental needs of the individual. The interpretation of concepts such as happiness and fun have an important bearing on not only the worker's attitude toward the blind, but also on the blind person's attitude toward himself—his self-concept. However, complication and confusion arise in an attempt to define these terms on anything more than a superficial level. Satisfaction is unique for each individual depending upon his needs and interests. Each person has limitations, problems, and conflicts which influence his total being; fulfillment comes partly from the capacity of the inner self to deal with these limitations. The blind person shares with the sighted the problem of learning and adjusting to his personal limitations so that he can become self-determining and can function independently to his maximum potential. Even though he may have to adjust to living a different life, it need not be one of complete dependence.

Learning to adjust limitations

The recreation worker must be concerned not only with activities, but must be "person centered" and understand the effects of programming on the blind person. He must deal with the blind person's attitudes, the real determiners of self-direction. Without healthy attitudes, activities may deter rather than develop the person. And these services need to be geared to the blind person's unique set of behavioral patterns.

The Adjustment Process in Recreation Programming

☐ This leads into a discussion of how attitudes affect the blind person's self-image. One's inner life is influenced to some degree by contacts with the outer world. Therefore, it is imperative that the attitudes and approaches adopted by the recreation service help the blind person to develop a healthy self-concept, one with which he can learn to be a capable, adequate individual.

The achievement of social rehabilitation is frequently limited by the psycho-social problems related to blindness. These are often more problematic than blindness itself. Psycho-social refers to those influences stemming from the blind person's attitudes and self-concept, the effects of familial relationships, and from his total environmental experiences. These influences may play a major role by inhibiting blind people from having self-directed recreational experiences in the community.

Attitudes and self-concepts as they relate to recreation

A discussion of familial relationships is not within the scope of this article. Let us consider the blind person's attitudes and self-concepts as they relate to socio-recreational programs. The blind person may seek recreational services from agencies as an escape from the real world and to avoid accepting and adjusting to limitations or disabilities. This attitude takes the form of dependence—others must do for him because he is blind and therefore helpless. The attitude "you are to entertain me, you are to see that I have a good time, you are to make life easier for me," is self-defeating. We all use recreational activities as an escape mechanism or as diversion; but the seeking of fulfillment from recreation experiences means more than diversion. It means being active, learning, exploring, planning, developing, and doing things that have meaning. To the blind person, it means using his capabilities and strengths in pursuit of recreation experiences that provide him with positive feelings of accomplishment, expression, completion, and responsibility.

The Role of Recreation Skill

☐ One aspect of the psycho-social forces within the blind person's cultural environment is agency recreation services. The teaching of skills has traditionally been an important aspect of these programs. However, the development of skills does not seem to be the only major factor related to independent recreation functioning. Blind persons perform many of the same activities as sighted persons and often possess adequate skills. But they do them alone or with other blind people. Perhaps this is an indication that exposure to recreation skill development alone, is not enough preparation to achieve self-direction in recreation activities.

Frequently, recreation activities are selected and labeled as activities which are especially good for blind persons. However, it is not fair to the blind person to pre-determine what he is or is not capable of doing because it does not give him the opportunity to learn and to have new experiences.

So-called "blind activities" limiting

Among the pre-determined activities often provided are the so-called "blind activities" for blind people. These may not only be limiting, but in effect imply that the blind person is incomplete or inferior, i.e. because of blindness he can only experience certain recreation activities and only with assistance or under the guise of services for the blind. Actually very few special techniques or devices are needed for blind persons to participate in most community activities. What then inhibits full participation? Attitudes. Constructive attitudes that show a basic concern and belief in the blind person's ability to be a whole person and in his innate desire to become independent are needed. Positive attitudes which encourage him to do things for himself need to be instilled gradually.

What inhibits full participation?

Activities themselves add to the self-concept through the learning of new skills, interests, and habits. But the development of these skills depends not only upon physical or intellectual abilities but also upon attitudes toward learning and using new skills. The recreation worker can help the blind person to develop healthy attitudes toward learning them, even though blindness may force him to adapt himself. He may have to accept certain limitations, but he can still lead a meaningful recreational life.

Socialization

Social relationships are another major part of recreation. The social interaction of the blind person with recreation workers, volunteers, and friends will undoubtedly influence the extent to which he develops a healthy self-concept. Socialization and the development of friendships present difficulties for blind persons. They are often isolated or segregated with other blind people, thus limiting opportunities to socialize with diverse people.

Blind people tend to develop friendships with each other because they are thus more sure of being accepted. But such limiting experiences prevent full participation in the sighted world and restrict access to a full life. Consequently the blind person is labeled as such, unfit to function in the sighted world. Furthermore, limited social experiences tend to inhibit successful vocational attainment because most jobs require some social interaction with the sighted.

Educating the public to accept the blind as capable is a difficult and never ending task. However, the blind person can be taught appropriate skills and techniques in meeting and socializing with the sighted. He can learn to put the sighted person at ease. He can learn to deal with his own fears of hostility, rejection, or protection by the sighted in such a manner that they will accept him. Because sighted friendships are often difficult to make, the recreation worker has a responsibility to assist the blind person in expanding his social relationships.

Independence vs. Dependence

☐ An important concept in programming for the blind is concerned with the independent-dependent variable within the basic framework of the program structure. When we do something for a blind person which he has the potential to do for himself, we reinforce his feelings of worthlessness; in effect we are telling him he cannot do it himself.

However, forced independence can be as harmful as overprotection. Both tend to be superficial, that is, they do not deal with the real determiners of behavior, and usually inhibit healthy approaches to adjustment. The blind person coerced into independence is not really independent, and he may regress into a more dependent state because of anxiety, rigid fear, and inability to cope with the added responsibility. Adjustment and the desire for personal independence come from developing a positive self-image within the individual. We can help him strive for self-expression, but pushing is artificial and will only retard development. Socio-recreative rehabilitative attitudes must be integrated into the blind person's desire to be active, self-motivated, responsible, and self-confident.

Assessments of Needs and Planning of Services

☐ In planning services, the need assessment process is primary to the utilization of these approaches. The current living pattern is evaluated, not by predetermined standards (usually middle class values) but by the individual's ability to adjust and cope effectively with it. Is he deteriorating or regressing in his present style of socio-recreational functioning? Is he discontented with his leisure time? Is he realistic in his aspirations? Does he have a healthy and realistic attitude toward recreational experiences? Does he make use of his resources? What were his past interests and what are his present habits? These questions are central to the assessment process.

Following the evaluation of needs, the planning of services can commence with the aim of helping the blind person, with areas of weakness, to reach the goal of socio-recreative self-determination. So approached, the blind person learns to deal with and assume responsibility for his own problems and recreation experiences. He may need motivation assistance, interpretation, or guidance support, but as self-confidence is instilled and skills developed, he gradually accepts more responsibility for planning and carrying out his own recreational experiences; and begins to move toward independence.

What are the methods of assisting the blind person with his leisure life? Recreation counseling, group discussions, socialization programs, activities (some of which are planned by the blind person), community referral, placement and follow-up, and skill development contribute to a fuller and expanded recreation life. Services should progress toward the stated goal, even though reaching it seems impossible. Once the service assumes the attitudes that the goal is unattainable, the blind person will begin to feel inadequate and even more different. If the blind person is not expected to learn to be self-sufficient the dependent forces are set in motion. We ought to encourage positive self-development, no matter how difficult this process becomes, even though the blind person may want to be dependent and protected, we have an obligation to help him to independence, because it is in his best interest. A dependent person is not content with himself when he must depend upon others and be subject to their actions.

Conclusion

A social agency has an obligation to fulfill its goals and objectives. The blind person's wants are important indicators of his functioning, but they only indicate and are not the only determiners of service. The service must be geared to the current level of the blind person, instilling growth and development gradually. His wants, interests, attitudes, habits and friendships are important indicators of functioning levels. An agency can help the blind person understand his own wants, needs, and problems so he can determine his own recreation pursuits and interests.

Because the blind person may need assistance in developing a healthy self-image, he should be supported and guided in finding actual successful experiences. Protectiveness deprives the blind person not only of experiencing success, but of the basic feeling that he is capable. Therefore recreation should incorporate attitudes which accept the realistic limitations of the blind person and at the same time help him to deal directly with the problems he faces in effectively utilizing and augmenting his capabilities; i.e. learning to adjust, and learning a way of life that is productive and meaningful.

College Preparation of Blind Prospective College Students

ROY KUMPE

Mr. Kumpe is executive director of Arkansas Enterprises for the Blind, Little Rock.

Before "Head Start" became a national term indicating the advance preparation needed by some students before enrolling in school, rehabilitation workers and educators felt that a gap often existed between high school graduation and college readiness. As early as 1950, this conviction led the Arkansas Enterprises for the Blind to emphasize this need in certain college-bound trainees. In 1963 a grant from the Rehabilitation Administration enabled the facility to conduct a three-year college preparedness research and demonstration project for blind high school graduates.

A research design of two legally blind groups, experimental and control, was set up. The experimental group had 10 weeks of additional preparation beyond high school graduation, but the control group had no additional preparation.

The two groups comprised a research sample of 102 students, approximating one-half of one percent of the blind college student population. They were drawn from 13 states and were enrolled in 70 colleges and universities, ranging in size from fewer than 150 to 27,000 students. All but four of the colleges were accredited by one of the six college accrediting associations.

The ability levels of the two groups closely approximate the normal distribution in the population. Comparisons of group performance in college were limited to those students enrolled in accredited colleges, but the results of work in unaccredited colleges were obtained. They seem to have genuine educational value for their students.

Purpose of Project

☐ The purpose of the project was to demonstrate the value of additional preparation for blind college-bound high school graduates. The project provided some academic work but emphasized the personal performance skills necessary for a blind person to offset the handicap caused by lack of sight. Testing, evaluation, and counseling were also provided to enable the student to evaluate his goals more realistically. The evaluations were reported to the student's rehabilitation counselors for use in rehabilitation planning.

As a means of obtaining information from new rehabilitation sources, as well as feed back from the experimental students, a follow-up study was made to survey the ideas of college personnel who were acquainted with the students and also to get the ideas of the students themselves. A mass of factual information and personal opinions was obtained from which evaluations were made. Objective data has been used in all comparisons and are as nearly free from bias of interpretation as a simple statistical presentation would permit. Subjective data have been presented to give as nearly the meaning intended by the person giving the information as the condensing of such a volume of data would permit.

Subjects covered

The program provided the experimental group with training in 17 activities, or as many of these activities as their week of evaluation indicated were necessary. These were: college level theme writing; writing term and research papers; taking college type examinations; practice in note taking; course planning; lectures on a variety of subjects; small group problem discussions; library information; orientation and travel instruction; typing instruction; braille instruction; instruction in daily demands of living; social skills and recreational instruction; craft and shop instruction; personal and social problems; special resources for the blind student; reading methods and services.

Course Evaluated by Students and College Personnel

☐ The experimental group evaluated the course during their freshman year on a three stage scale: 39 percent felt the course was *very helpful;* 44 percent felt it was *some help;* and 17 percent felt it was *no help.* When asked to evaluate the amount of emphasis various activities should receive, 30 percent suggest *more;* 60 percent suggested the *same;* 5 percent suggested *less;* and 5 percent suggested *none.*

The control group during their freshman year was asked to subjectively consider the college preparation course and give their estimate of the value such a course might have been to them. Their estimates were: 43 percent felt it would have been *very helpful,* 29 percent felt it would have been of *some help,* and 28 percent felt it would have been of *no help.*

The college personnel interviewed were deans, English teachers, major professors, academic counselors, and dormitory supervisors. Of necessity, substitutes had to be made in some instances. The additional areas of preparation needed by blind students were identified and ranked in the following order: attitude, skills, guidance, obtaining help, adaptations, self-direction, social performance, use of resources, and academic preparation. These suggestions strongly indicate personal development to be more needed than anything else.

Comparisons of Academic Performance

☐ Comparisons of academic performance of the two samples by quartile distribution indicated the course must have had significant value for the experimental sample since 17 percent of them were in the first quartile as against 7 percent of the control sample. Continuance in college to the end of the freshman year gave the experimental group an 86.8 percent against the control group's rate of 83.6 percent continuance. Both groups showed a marked advantage over one study of a much larger sample of the general freshmen population, which showed a continuance rate of 58.1 percent for original registration to 64.2 percent when transfers to other colleges were taken into consideration.[1]

The rate of completing the work in which each sample was enrolled gave the experimental sample a slight margin for completing college in less time, if such a projection is dependable.

In quality of work the experimental sample earned an average grade point of 2.59 as against 2.54 for the control sample. There was also a greater

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1. "In and Out of College" pages 10, 79-87, Oklahoma Board of Regents, Higher Education.

change in the number of poorer performers in the experimental sample than in the control sample when the standard deviations of the two groups' performance were compared. This might indicate that weaker students received more from the course than stronger ones.

Comparisons of performance by school background indicated the experimental sample from residental schools earned a grade point average of 2.62 against a 2.35 for the control sample; although students with public school background in the control sample earned a grade point average of 2.70 against a 2.34 of the experimental sample.

Comparisons of performance based on amount of sight

Perhaps the crux of this abstract should be the encouragement, as well as guidance, that may be obtained from the comparison of performance on the basis of functional sight for both samples and without regard to the research design. Totally blind in the experimental sample earned a grade point average of 2.64, compared to the 2.41 for the partials, and 1.91 for those who performed as sighted persons. This pattern also held true for the control sample in which the totally blind earned a grade point average of 2.79 against a 2.38 for the partials, and a 2.22 for those who performed as sighted persons.

A survey of the major fields chosen by the students studied, reveals the predominant field to be education. Certification policies are such that blind students face a collision course. A special study of teaching and the requirements of teacher certification is indicated.

The project resulted in a continuing service for blind prospective college students. Rehabilitation counselors evidently have found it a worthwhile preparation for college. Training for blind high school graduates will be offered again during the summer of 1968, but of necessity will be limited to approximately 35 students.

If this is not your own copy of *The New Outlook for the Blind;* we invite you to make use of one of the subscription blanks in the back of this magazine so that you can receive your own each month.

AAWB Roundup

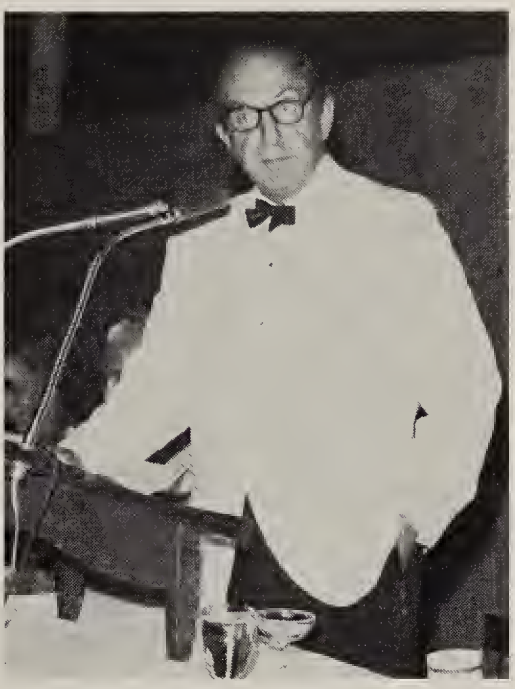
Thirteen state chapters of the American Association of Workers for the Blind received their charters during the 42nd annual convention of the AAWB July 7-12 in Toronto.

The 13 chapter presidents, listed at the end of this article, automatically became members of the Board of Trustees, which met at the close of the convention.

At the same time, new officers were elected, during which a spirited competition developed for Board positions following nominations from the floor.

New officers are Howard H. Hanson, Pierre, S.D., president; Dr. Douglas C. MacFarland, Washington, D.C., president-elect; Mrs. Mary K. Bauman, Philadelphia, secretary, and Cleo B. Dolan, Cleveland, treasurer. New Board members are Dr. George C. Mallinson, Kalamazoo, Mich., and William Gallagher, New York City, five-year terms, and Dr. Berthold Lowenfeld, Berkeley, Calif., and Burt L. Risely, Austin, Texas, three-year terms.

Executive Secretary Fred Dechowitz reported that the organization of state chapters was proceeding extremely well, and that at least three regional meetings would be held during the ensuing year, probably in the middle west, the southwest, and the far west. The next national meeting will be in 1969 in Chicago.



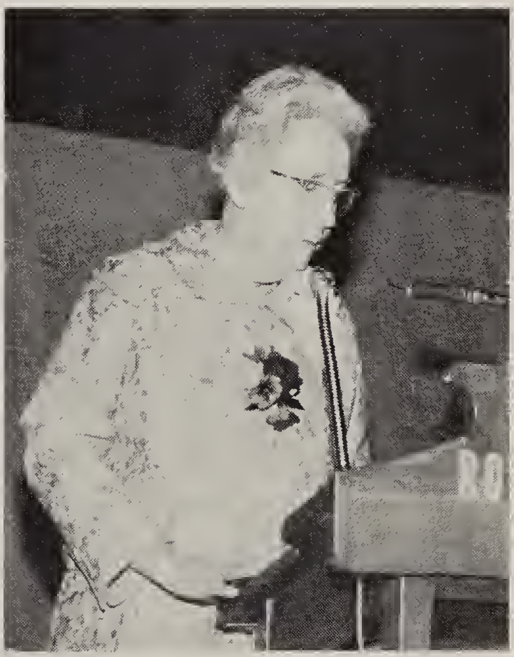
George Werntz, Jr.

General sessions, ranging in subject matter from diabetes to the multiply handicapped child, were well attended. The papers given on diabetes and the multiply handicapped will appear in various AAWB publications during the coming year. In a departure from the usual program planning, many of the interest groups tied their discussions to the general session topics.

Three awards were presented during the meeting. The Ambrose M. Shotwell Award went to George Werntz Jr., executive secretary of the Seeing Eye, Inc., since 1954. The medal and scroll were presented to him by Miss Elizabeth Hutchinson and William G. Debetaz, both long-time associates at The Seeing Eye, during the annual banquet. The award memorializes the work of Mr. Shotwell, a pioneer in work for the blind.

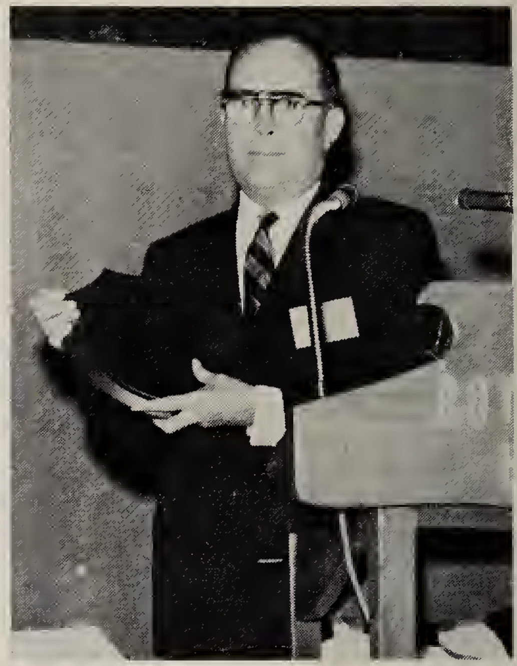
The Alfred Allen Award, given in honor of the long-time executive secretary of AAWB, went to Miss Elizabeth Rusk, former supervisor of home teachers for the Canadian National Institute for the Blind. She retired in 1960 after 40 years of working for the blind of Canada.

Burt L. Riseley, executive director of the Texas State Commission for the Blind, received the John H. McAulay Award, given annually for outstanding work in rehabilitation and placement of blind workers.



Elizabeth Rusk

Perhaps the outstanding feature of the convention, aside from the excellence of the program content, was the warmth and hospitality of the Canadian hosts, headed by Arthur N. Magill who retired as AAWB president and J. Douglass Johnston who served as general chairman of the host committee.



Burt L. Riseley

New AAWB Chapters and their Presidents

Alabama: John B. Parsons, Vocational Rehabilitation Services, 2129 East South Boulevard, Montgomery 36111.

Arkansas: L. H. Autry, Arkansas Rehabilitation Services for the Blind, 900 West Fourth Street, Little Rock 72201.

California: Sourthern area, Robert A. Eisenberg, California State College, 5151 State College Drive, Los Angeles 90032. Northern area: C. Sargent Hearn, Palo Alto Society for the Blind, 483 Addison Avenue, Palo Alto.

District of Columbia-Maryland: George W. Keller, Division of Vocational Rehabilitation, Services to the Blind, 2100 Guilford Avenue, Baltimore 21218.

Georgia: Leon C. Hall, State Department of Education, 159 Forrest Avenue, Atlanta 30303.

Illinois: Raymond M. Dickinson, 404 State Office Building, Springfield 62706.

Massachusetts: Dr. Gordon B. Connor, Morgan Memorial, Inc., 95 Berkeley Street, Boston 02116.

New Jersey: Very Reverend Richard M. McGuinness, Mount Carmel Guild, 99 Central Avenue, Newark 07102.

Ohio: Walter O. Deitz, 23170 Gay Avenue, Euclid 44123.

Pennsylvania: Mrs. Mary K. Bauman, Personnel Research Center, 1604 Spruce Street, Philadelphia 19103.

South Dakota: John Doherty, South Dakota Service to the Blind and Visually Handicapped, 204 North Weber, Sioux Falls 57102.

Texas: Burt L. Risley, 317 Houston State Office Building, Austin 78701.

Virginia: John Fiorino, Virginia Commission for the Visually Handicapped, 3003 Parkwood Avenue, Richmond 23221.

P.S.S.

AAIB Roundup

The American Association of Instructors of the Blind held its 49th and last biennial conference at the Royal York Hotel in Toronto June 23-27. The theme of the five-day conference, which was attended by more than 600 people concerned with the education of visually handicapped persons, was "Beyond the Three Rs."

Name Change

☐ If the reference, in the first paragraph, to the "last biennial conference" sound ominous to some, let us allay any fears right now by explaining that the proposal to change AAIB's name to the Association for the Education of the Visually Handicapped was on the agenda at the conference and was accepted by the membership, although not without some lively discussion. The two points brought up most frequently in the discussion were the absence of American in the title and the use of handicapped rather than impaired.

Discussion of terminology chosen lively

Valid reasons for omitting American and using handicapped rather than impaired were offered by the Association Name Change Study Committee (Natalie C. Barraga, John E. Chiles, Ross Huckins, Elinor Long). "American" was omitted from the title for two reasons: it made the new title too long; and the membership is not limited to the United States and Canada. "Handicapped" rather than "impaired" was chosen because, despite the rather widespread objections to the term handicapped as a label for the visually impaired, it is the terminology in common usage. The Association works closely with the Council for Exceptional Children's Division for the Visually Handicapped and the U.S. Office of Education's Unit for the Visually Handicapped, and it was felt that use of the same terminology would cut down on confusion.

At the same general meeting (the last) that acted on the name change proposal, the membership also elected new officers. They are William H. English, president; Carl J. Davis, first vice-president; Lee Jones, second vice-president; and Mary K. Bauman, secretary-treasurer. The members of the board of directors are Dr. Natalie C. Barraga, John E. Chiles, Dorothy L. Misbach, Lee Sanborn, and Robert McQuie.

Lest it seem that members were concerned exclusively with Association business, let us report that it was very much a "working" meeting with extremely good attendance at most of the workshops and general sessions. The several sessions devoted to the partially sighted child were particularly well attended. In fact, this reporter had to stand through one of them! M.E.M.

Letters to the Editor

Dear Editor:

The editors of the *New Outlook* have, in my humble opinion, done a courageous thing in publishing the article in the September issue by Harvey Morris, entitled "The Unhelped Blind."

This expression by an obviously knowledgeable blind person, to borrow a phrase, "Tells it like it is." Needless to say, workers for the blind throughout the country will not agree with most of his statements and conclusion. In fact, to many, they must of necessity be downright heresay.

I believe, however, it is time to reexamine the entire structure of work for the blind with a view to evaluating the thoughts by Mr. Morris, which I know are entertained by most knowledgeable blind people.

—Winthrop K. Howe, Jr.
Rochester, N.Y.

Dear Editor:

Thank you for your editorial notes in the June issue of *The New Outlook.*

I was pleased to observe your appeal for dialogue on the problem of the aged blind. Our Agency attended an AFB Regional Workshop for Administrators of public and private agencies serving the blind a year ago in Oklahoma City. Dr. Scott was the principal resource person at this Workshop.

Ephphatha Services is persuaded that the Churches in America are in a unique position to render significant service to the aged blind *if* they can be alerted to the challenge! To this end our annual report to the eighteen jurisdictional units of The American Lutheran Church this year featured the challenge of up-grading her services to the aged blind.

Our reports featured a request for specific information regarding the name, address, church, and degree of vision loss for our Church's Register of the Sensory Impaired. The response is not spectacular, but this office is receiving names every week from the congregations of this church body. Hopefully, this will be a start.

In cooperation with the Library of Congress, Division for Blind and Physically Handicapped, our Agency recently appealed to over 625 pastors who are on our list of retired pastors to assist us in reaching out to the aged blind. Hopefully, this too will demonstrate our desire to walk along with those who are facing a vision loss in the sunset years of their life.

For the past three years our agency has been experimenting with a project of providing on tape recordings the official church paper of our synod—*The Lutheran Standard*—a bi-weekly publication. We are currently sending these tapes to over 75 people—most of whom are in the age that your editorial was concerned with.

Our Agency has been used as a catalyst in causing our Church's Board of Publications (Augsburg Publishing House) to review the matter of publishing more material in "larger than average" print. We are beginning to see some evidence of results in this area too.

—Sterling H. Simonson
Executive Director
Ephphatha Services for the Deaf and the Blind

Dear Editor:

In the April issue of *The New Outlook* there was a story on the new IBM electric braille typewriter. In the May issue of the *Outlook* there was an article about a simplified braille writing slate ("Developing and Evaluating a Simplified Braille Writing Device" by Ruth L. Barr, p. 148). This material stimulated me to thinking about the approximately 75 percent of blind people who for one reason or another are not able to learn braille. These blind persons now have no means of reading written communications or literature. A simple solution to this problem would be the use of the telegraphic code as a substitute for braille or along with braille.

A seven-year-old child, sighted or blind, can learn the telegraphic code in just a few hours. With a little practice, the telegraphic code can be typed on a standard typewriter, using just two keys, at several times the speed at which braille can be written with a stylus. In addition, this code can be read by large numbers of persons—for example, every man or woman who has been in the armed services.

Both blind and sighted persons could also write the code using a pad of paper, a ruler, and a hard pencil. If the writing is begun at the bottom of the page and the ruler moved upward for each line of characters, when the page is turned over, the raised symbols would be evident to the touch. The message is read from left to right and top to bottom.

The use of telegraphic code would also permit blind persons to communicate with sighted ones. (With the exception of sighted persons teaching blind persons and personnel of braille printing houses, there are few sighted individuals who know braille or would take the trouble to learn it. Why should they?)

I do hope that all of those concerned with helping blind persons communicate more effectively, will give more attention to the use of the telegraphic code I think it has possibilities.

—Norman E. Elsas

Current Literature

Large Print Books, by Richard J. Muller. *ALA Bulletin* (American Library Association, 50 E. Huron Street, Chicago, Illinois 60611), Vol. 62, No. 6, June 1968, p. 735-738. Mr. Muller is administrative assistant to the demonstration project in large-print books of the New York Public Library. This is a preliminary report on the project's first year, which ended July 1967.

Large-Type Books: An Expanding Horizon, by John Tebbel. *Saturday Review* (380 Madison Avenue, New York, N. Y. 10017), Vol. 51, No. 28, July 13, 1968, p. 55-56. Review of the developments in the three-year period since Keith Jennison Books published the first American commercial book set in large type.

Knots, Lines and Dots, by A. B. W. Marlow. *Infama* (Official Organ of the S. A. National Council for the Blind, Netherlands Bank Buildings, Church Street, Pretoria, South Africa), Vol. 8, No. 4, April 1968, p. 2-4. A short history of braille and its predecessor methods of reading for the blind by the former principal of the Athlone School for the Blind in South Africa.

What is 'Readiness' for the Blind Child? by Ina W. Kurzhals. *The Utah Eagle* (Utah Schools for the Deaf and the Blind, 846 Twentieth Streetl Ogden, Utah 84401), Vol. 79, No. 7, April 1968, p. 1-2. Brief discussion of the four general areas—physical, mental, socio-emotional and psychological—to be considered in judging a blind child's readiness for school.

Emotional Tension and the Visually Handicapped by J. S. Gericke. *The Educator* (International Council of Educators of Blind Youth, Perkins School for the Blind, Watertown, Massachusetts 02172), [July 1968], p. 1-6. A detailed discussion of the "labile" type of individual—one whose emotional reactions are easily evoked—and the difficulties experienced by such individuals in the school setting. Mr. Gericke, who is Vice-Principal of the School for the Blind in Worcester, South Africa, describes the use of the optic finger plethysmograph (apparatus for measuring the influence of emotional tension on the peripheral circulation) in experiments to determine the degree of emotional stability in an individual.

Adapting the Randolph-Sheppard Vending Stand Program to the Advances of Automation; Final Report on Project No. RD-1626-S, U. S. Department of Health, Education and Welfare, Vocational Rehabilitation Administration, January 31, 1968, by William W. Thompson, Principal Investigator. Washington, D. C., Government of the District of Columbia, 1968. [iii] + 11p. Report on a research project begun in 1965 to determine the feasibility of training blind persons to replace sighted attendants in automated snack bars. Copies of the Final Report and Operations Manual may be obtained by writing to Mr. William W. Thompson, Vending Stand Program Coordinator, D. C. Department of Vocational Rehabilitation, 1331 H Street, N. W., Washington, D. C. 20005.

Blind Ski-ers, by Fred Reid. *The New Beacon* (Royal National Institute for the Blind, 224 Great Portland Street, London W1, England), Vol. 52, No. 613, May 1968, p. 120-122. The story of the "Ridderrennet", a fifteen-mile ski race for blind people and those with other handicaps which has been run in Norway since 1962. The annual event takes place in April at Beitostlen, a skiing center north of Oslo. It is the climax of an International Winter Sports Week. Mr. Reid, who is blind and had never skied before, took part in the 1968 race.

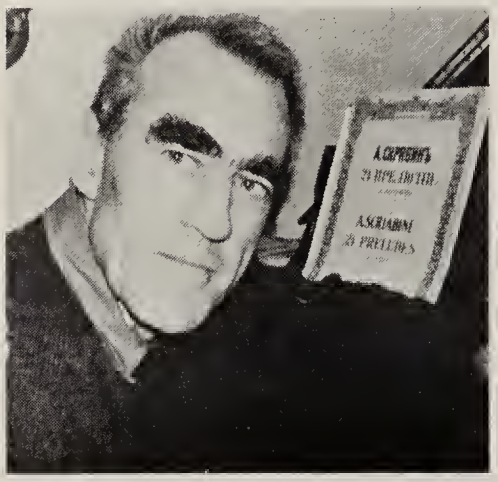
Maps for Mobility, by J. B. P. Angwin. *The New Beacon* (see address above), Part 1, Vol. 52, No. 613, May 1968, p. 115-119. Part 2, Vol. 52, No. 614, June 1968, p. 143-145. A two-part article concerning the problems of design and preparation of maps by a long-time member of the consultative committee on maps of the Royal National Institute for the Blind. Colonel Angwin is interested in extending the activities of voluntary groups in making special maps at the request of blind individuals.

The Design of Reading Material for the Partially-Sighted, by Alison Shaw. *The New Beacon* (see address above), Vol. 52, No. 615, July 1968, p. 178-180. (Reprinted from the September 1967 issue of *The Book Trolley,* the quarterly journal of the Hospital Libraries and Handicapped Readers Group of the Library Association.) In 1966 Miss Shaw was appointed by the Library Association (Great Britain) to undertake a systematic study of the legibility of various type faces and layouts with the objective of establishing the best standards of print to help readers with defective sight. This article gives background information relative to the project, the final results of which will be available next year. M.M.R.

News in Brief

■ William Gibson, author of *The Miracle Worker,* and Dr. Berthold Lowenfeld, superintendent of the California School for the Blind from 1949 to 1964, have been awarded the 1968 Migel Medals for outstanding services to the blind. Mr. Gibson and Dr. Lowenfeld received the awards at ceremonies held in New York City October 24.

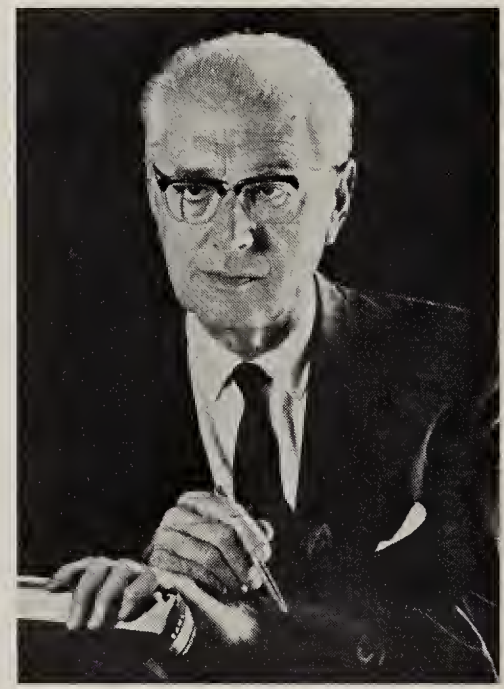
The Migel Medal is awarded annually by the American Foundation for the Blind in recognition of outstanding contributions to the field of work for the blind on both the professional and voluntary levels. The medal, first presented in 1937, is named in honor of the late M. C. Migel, the first president of the Foundation.



William Gibson

William Gibson, this year's Migel Medal winner for services on the voluntary level, in *The Miracle Worker,* made real, for millions of television viewers, and theatre and film goers in this country and abroad, the myth-like story of Anne Sullivan's determination to instill knowledge into the blind and deaf Helen Keller. First produced on the Playhouse 90 television series in 1957, *The Miracle Worker* opened on Broadway in 1960 and was made into a film in 1962. Anne Bancroft and Patty Duke, who portrayed Anne Sullivan and Helen Keller on the stage, repeated their portrayals in the film version, for which they both received "Oscars."

Mr. Gibson, who was born in New York City and now lives in Stockbridge, Mass., is the author of several other plays including *Two For The Seesaw,* and a number of books, among them, *The Cobweb,* a novel; *The Seesaw Log;* and the recently published *A Mass for the Dead,* a reminiscence of his childhood and early adult years. A new play by Mr. Gibson, *A Cry of Players,* starring Anne Bancroft and Frank Langella, is opening this month as one of the five 1968-69 productions of the Repertory Theatre of Lincoln Center.



Dr. Berthold Lowenfeld

Dr. Berthold Lowenfeld, this year's Migel Medal winner for professional services to the blind, has been a distinguished figure in work for the blind in this country for 30 years. The author of a number of books and articles on the education of blind children, Dr. Lowenfeld was born in Austria and received a Ph.D. in child psychology from the University of Vienna in 1927. He came to this country in 1938. From 1939 to 1949 he was director of Educational Research for the American Foundation for the Blind. In 1949 he became superintendent of the California School for the Blind.

Dr. Lowenfeld has also served as an instructor at Teachers College of Columbia University, as a visiting professor at Western Reserve University, and the universities of Washington and Michigan, and as a consultant to many federal, state, and private agencies. He is presently serving as a member of the National Advisory Council on Vocational Rehabilitation, as a consultant to the U.S. Office of Education, as a member of the American Association of Workers for the Blind editorial board, and as chairman of the Advisory Council to the Braille Authority.

■ The Rev. Dr. Gabriel Farrell, director of the Perkins School for the Blind from 1931 to 1951, died September 18 at his home in Cambridge, Mass. He was 82 years old.

Dr. Farrell received a B.S. degree from Dartmouth College and bachelor and doctoral divinity degrees from Episcopal Theological School and Dartmouth, respectively. He lectured on education for the blind at Harvard University and at the Lowell Institute in Boston and wrote many articles and pamphlets on blindness. His book, *The Story of Blindness,* based on his lectures, was published in 1956.

Dr. Farrell, who was a trustee emeritus of both the American Foundation for the Blind and the American Foundation for Overseas Blind at the time of his death, was a consultant to the National Society for the Prevention of Blindness and a director of the Foundation for Vision.

Dr. H. Keffer Hartline of Rockefeller University in New York City, 1967 Nobel Laureate for Medicine, will be the luncheon speaker at the 1968 annual conference of the National Society for the Prevention of Blindness. The conference will be held November 20 and 21 at the Roosevelt Hotel in New York City.

For more information, write National Society for the Prevention of Blindness, Inc., 79 Madison Avenue, New York, N.Y. 10016

■ The National Braille Press has announced that, beginning with the January 1969 issues, its professional journal, now called *The Home Teacher,* will be called *Rehabilitation Teacher.* The change in name is being made to conform with current terminology. At the same time, the journal will begin publishing a mimeographed as well as a braille edition.

Subscriptions ($1.50 a year for either edition) can be obtained by writing to Mrs. John Bisbee, editor, *The Rehabilitation Teacher,* National Braille Press, Inc., 88 St. Stephen Street, Boston, Mass. 02115.

■ Robyn S. Bleiberg has joined the Ameriican Foundation for Overseas Blind as program consultant in the department of regional operations.

Miss Bleiberg previously served as head teacher in the educational program for psychiatrically impaired blind children at the Jewish Guild for the Blind, New York City. Prior to that, she was an itinerant teacher in Huntington, N.Y.

■ Three manuals of interest to teachers of blind persons have just been published by Western Michigan University. They are:

Homemaking Manual by the staff of Community Services for the Visually Handicapped, Illinois Department of Children and Family Services. Available in inkprint and braille.

Handwriting Manual by the staff of Community Services for the Visually Handicapped, Illinois Department of Children and Family Services. Available in inkprint.

Techniques for Eating by Lloyd C. Widerberg, instructor, Orientation and Mobility Specialist Program, and Ruth Kaarlela, assistant director, Institute of Blind Rehabilitation, Western Michigan University. Available in inkprint.

The manuals are available from the Institute of Blind Rehabilitation, Western Michigan University, Kalamazoo, Michigan 49001. Each manual costs $1.

■ Melvin A. Fredell has retired after 26 years as recreation director of the Minneapolis Society for the Blind. Mr. Fredell has been succeeded as recreation director by Richard H. Fredericks who was formerly a member of the staff of the Minnesota Residential Treatment Center.

■ The American Foundation for Overseas Blind has announced the establishment of a department of regional operations in its New York office. This new department will be responsible for program planning, the provision of assistance to regional directors, members of their staffs, consultants, and others, and for the coordination of inter-regional activities.

Alex H. Townsend has been named head of the new department with the title coordinator of regional operations.

■ Dr. Edward Ford MacNichol, Jr. has been appointed director of the National Institute of Neurological Diseases (NIND), and acting director of the newly established National Eye Institute. Both Institutes are part of the United States Departmen of Health, Education, and Welfare.

Prior to joining NIND, Dr. MacNichol had been a member of the faculty of The Johns Hopkins University for 19 years, teaching biophysics, neurophysiology, and electronics. Dr. MacNichol has written several articles on vision physiology in collaboration with Dr. Halden Keffer Hartline of Rockefeller University, winner of the 1967 Nobel Prize in Medicine.

■ A new pianotuning school for adult males, the Piano Clinic and Training Center, will open shortly in Batavia, New York. For more information, write Loren A. Pelkey, program instructor and director, Piano Clinic and Training Center, 544 East Main Street, Batavia, New York 14020.

Coming Events

November 1-5 American Academy of Ophthalmology and Otolaryngology, Annual Meeting, Chicago, Ill.

November 11-15 American Public Health Association, Annual Meeting, Detroit, Mich.

November 13-17 Council of Jewish Federation and Welfare Funds, Annual Meeting, Atlanta, Ga.

November 18-22 The National Association for Mental Health, Annual Meeting, Boston, Mass.

November 20-22 National Society for the Prevention of Blindness, Annual Meeting, New York, N.Y.

December 5-6 National Social Welfare Assembly, New York, N.Y.

January 21-23 Council on Social Work Education, Philadelphia, Pa.

March National Conference on the Aging, Annual Conference and Business Meeting, New York, N.Y.

March 9-12 National Health Council, National Health Forum, New York, N.Y.

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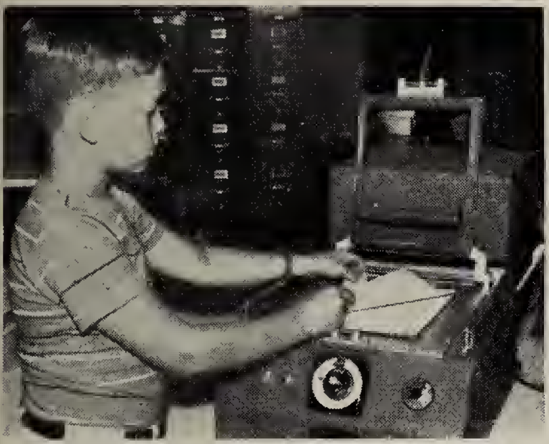

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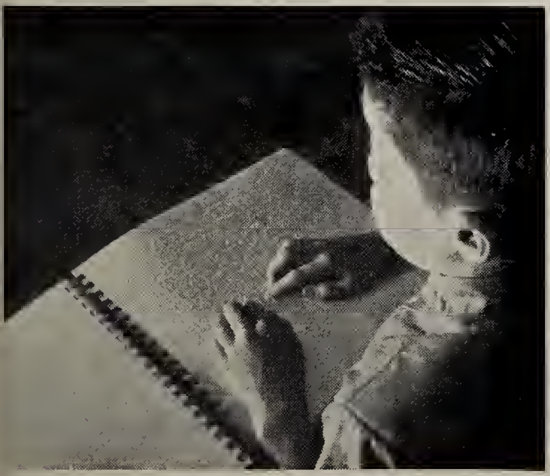

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December 1968 Volume 62 Number 10

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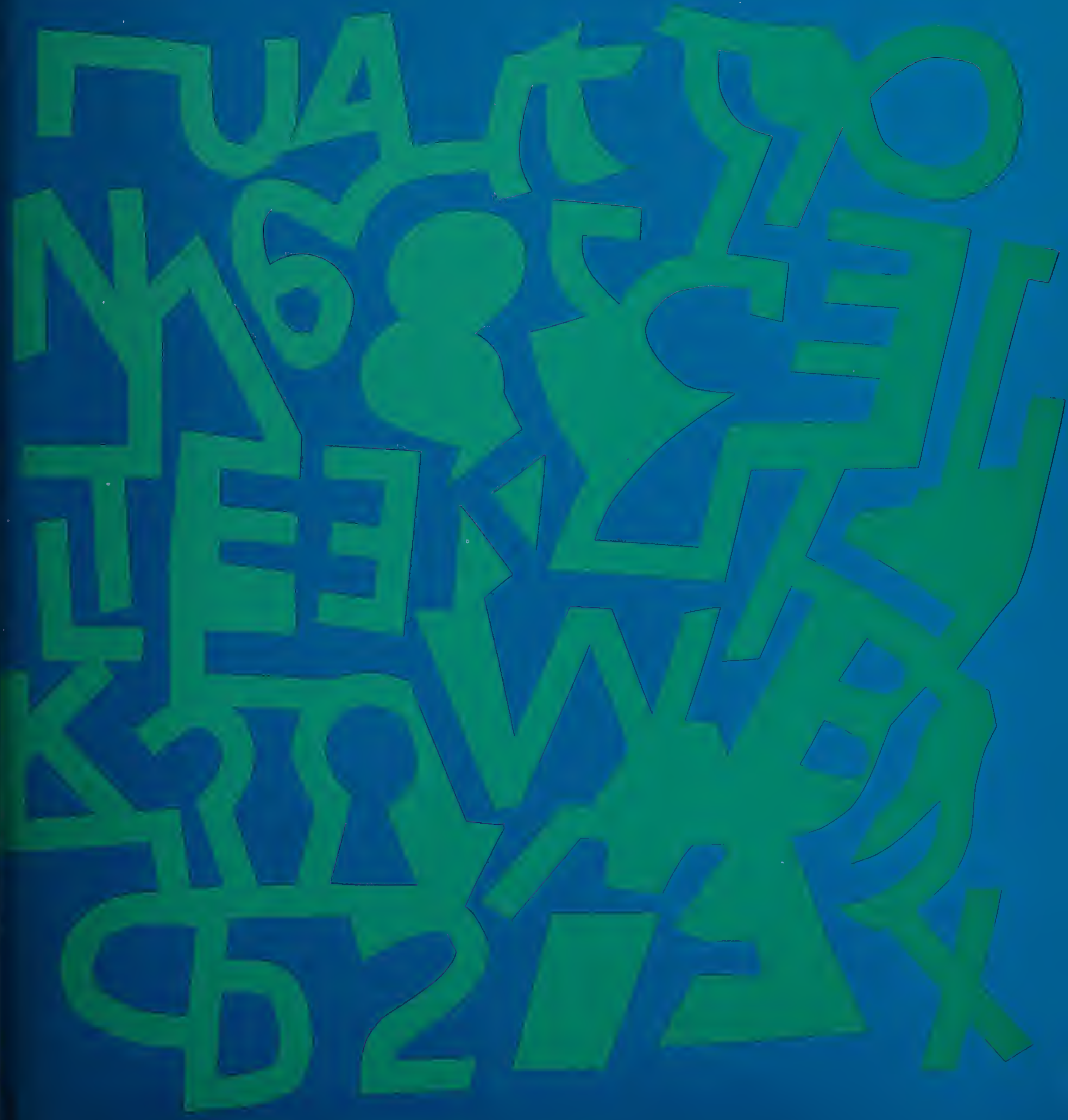

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Special Class Teacher Attitudes Toward Affective and Cognitive Goals for Visually Handicapped Students

LEO J. SCHMIDT, Ed.D.
CALVIN C. NELSON

Dr. Schmidt is an assistant professor of education at California State College at Fullerton. Mr. Nelson is an associate professor of education at the same school.

Few studies have investigated attitudes of practicing teachers of exceptional children toward specific classroom goals, i.e., academic achievement and emotional adjustment (Noel, 1966) (Fine, 1967) (Schmidt and Nelson—in press). The importance of such investigation has been underlined by Young (1967:10) who states that pupils "tend to perform in a manner teachers expect them to and, as a corollary, teachers tend to find in children the behavior they expect to find." Support for this view has been presented by Rosenthal and Jacobson (1968). Teachers of "disadavantaged" children were informed that certain randomly selected children in their classes were "potential academic spurters." The difference, therefore, between the experimental subjects and the undesignated students who comprised the control group was entirely in the minds of the teachers. The authors indicate that changing the teachers' expectations regarding the intellectual performance of the "spurters" led to a greater gain in intellectual performance of the randomly selected children.

The teacher of the blind or partially sighted child is, for the most part, assumed to be one who has developed a professional concept of his role as a teacher in a special classroom. Upon acquiring a position to teach visually handicapped children, his concept of the role is superimposed upon students in the class. Included in this concept of role are attitudes toward the acquisition of subject matter and/or emotional adjustment aspects on the part of his students. If attitudes are defined as individual tendencies to think, feel, and act in a patterned fashion (Backman and Secord, 1968) then such attitudes can be considered influential in determining the student's academic achievement and emotional adjustment.

Primary Purpose of Study

☐ The general problem of this study was to focus attention upon a cognitive/affective attitudinal dimension as expressed by special class teachers working with visually handicapped students in a public school setting. Primary purposes were to determine if secondary level teachers demonstrate a characteristic cognitive/affective attitude as determined by the criterion measure, and whether such a characteristic attitude, if one is so indicated, is consistent as years of teaching experience increase. Other purposes were to consider the effect of the teacher's present grade level of employment (7-9, 10-12), sex, and previous regular classroom experience on the attitudinal dimension.

Teachers in study

This study dealt exclusively with teachers of special classes for the blind and partially sighted, grades 7-12, in a major Southern California school district. No teacher participated in the study who did not possess a California credential to teach visually handicapped children, and who was not at the time of the study regularly employed as a special class teacher in the school district in which the study was performed.

All teachers were requested to complete and return by mail a forced-choice questionnaire and information sheet. Enclosed directions emphasized that a teacher should not sign or otherwise indicate his identity or the school at which he was employed. Attention was not directed to the fact that this was a study investigating teacher attitudes.

Responses

Two teachers did not return the questionnaire. Two other subjects invalidated responses by not answering in a forced-choice manner. Instead, they qualified each reply in such a way that the authors were unable to categorize the answers by any sophisticated procedure. Data obtained, therefore, consisted of responses from 14 out of an original 18 teachers in the selected population, or approximately 78 percent of the total population of secondary special class teachers in the defined category. Teaching experience with visually handicapped children of the respondents ranged from three years in a special class to 26 years with 10 of 14 teachers indicating previous regular class experience prior to special class teaching.

Scale Used in Study—PSCS

This study utilized the *Preferred Student Characteristic Scale* (PSCS) as developed by Nelson 1964). The scale is a modification of techniques used by Gage (1955) and Krumboltz and Farquahr (1957), who were concerned with measuring affective/cognitive attitudes of students. The development of this 36-item paired-choice instrument allows one to measure teacher attitude toward students in terms of cognitive or affective goals. A cognitive instructor, for this study, was defined as "one concerned with the intellectual, abstract, subject-matter goals of teaching,"—the affective teacher was defined as "being concerned with emotional adjustment and student interaction in the classroom." (Nelson, 1964)

Scoring

The PSCS is scored in such a way that a low score indicates preference, on the teacher's part, for an affectively oriented student. In contrast, a high score indicates teacher preference for a cognitive student. Maximum cognitive score is 36 points, whereas maximum affective score is zero.

The results of the study are summariezd in Table I.

An examination of this table indicates that the group of teachers expressed an attitude more cognitive in orientation than affective. Of par-

TABLE I

PSCS Attitude Mean Scores of
Teachers of Visually Handicapped

Teacher Group	*N*	*Mean*
Entire Sample	14	23.4
Male Teachers	8	24.6
Female Teachers	6	21.8
Teachers—Grade Level 7-9	7	23.7
Teachers—Grade Level 10-12	7	23.1

ticular interest was the finding that the mean PSCS's score for teachers of the visually handicapped was essentially the same as the mean PSCS score obtained on regular class teachers (Nelson, 1964). In contrast, however, mean PSCS scores of secondary teachers of educable retardates (Schmidt and Nelson—in press) were significantly more affective than results obtained in the present study. This data would suggest that practicing teachers of the visually handicapped do not perceive the disability as necessarily associated with intellectual or achievement retardation. Although input from a major distance sense may be limited or distorted in the student, the teacher views the cognitive structure of the child as basically normal. Such interpretation of the data would substantiate the view of Bateman (1968: 266) that the only limitations on school achievement are techniques used by teachers to impart the information. It appears as if data from this sample of teachers would support such a position. It is recognized, however, that such an *ex post facto* explanation may not be tenable and that a significant problem in this area of discussion lies in the limitation of being unable to observe the teachers' actual classroom performance.

Attitudinal dimension consistent

The mean PSCS attitudinal responses of both sexes and of teaching level suggest that unlike many regular classroom teacher attitude studies (Sangrean and Schmidt, 1956) (Beamer and Ledbetter, 1957) (Lindgren and Patton, 1958) there is a similarity of special class teacher attitudes toward cognitive/affective goals at both the 7-9 and 10-12 grade level. In addition, a correlation was computed between years of teaching experience with the visually handicapped and PSCS scores to determine if such an attitude would vary over a period of years in a special classroom. The relationship between the previously mentioned two variables was so slight that it did not lead the authors to assume a definite relationship existed. The investigators can only surmise that the attitudinal dimension is consistent and does not change with increasing years of teaching experience in a special classroom. This finding, however, supports previous data obtained on EMR teachers in terms of the same attitude dimension measured over a number of years (Schmidt and Nelson—in press).

Nonsignificant Difference Between Experienced and Inexperienced Teachers

☐ An examination of PSCS scores between teachers indicating previous experience and those without previous experience in regular classrooms was also undertaken. Approximately 30 percent of the sample reported no previous regular classroom experience prior to teaching the visually handicapped. No significant difference was found in the investigated attitudinal dimension between the two groups. This finding may have implications for those who debate the issue of whether regular class experience should be a prerequisite for special class teachers. If a specific attitude toward cognitive and/or affective goals is considered desirable in a special class for the visually handicapped, and if this dimension of attitude is what has been exhibited by both groups of our special class teachers, then it would not seem, at least from the results of this small sample, that a prerequisite of regular classroom teaching contributes significantly to the attainment of this goal. It is of interest to note, in this respect, that Meisgeier (1965) has

Implications

reported that prior regular class teaching was not found to be significantly related to successful student teaching with mentally and physically handicapped children.

Conclusions

☐ The special class is but a single factor in the total environment which affects the intellectual, social, and emotional adjustment of the child who is blind or partially sighted. Within the special class, however, the special educators' learned predispositions to behave (attitudes) are singularly important in determining the development of the child. It was the purpose of this paper to report the results of a study of one attitudinal dimension of secondary teachers of visually handicapped children, and to point out some of the implications of these results for possible consideration in training programs.

The attitudinal dimension investigated with the small sample of special class teachers cannot be represented as a detailed investigation. Additional studies in this area should incorporate larger populations, sophisticated sampling procedures in order to control other important variables, and particularly, to investigate the interactive effects of such variables.

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Trends of the Research and Development Process on the Sensorily Impaired—Part Two

MILTON D. GRAHAM, Ph.D.
LESLIE L. CLARK

Dr. Graham is director of the research department at the American Foundation for the Blind, New York City. Mr. Clark is director of AFB's International Research Information Service.

The following is the concluding part of a two-part article on the research and development process which has been adapted from a longer article that appeared in Research Bulletin *No. 14 published by the American Foundation for the Blind. Part One of this article appeared in the November 1968 issue of the* Outlook. *Readers interested in the bibliography and references for this article should refer to* Research Bulletin *No. 14.*[*]

Step 4. The reporting of research findings

The dissemination of research results is, if our view of science is correct, equal in importance to the work itself. If science is public knowledge, then only by distributing the products of scientific work widely can one make possible the examination of basic hypotheses and the reformulation of hypotheses we referred to above. The difficulties of dissemination, however, quite aside from the initial one of commiting one's work to paper, are manifold. They result in part from the fecundity of the scientific method, and in part, because in the face of this fecundity, there is always too little time and too few personnel to deal with the endless stream of knowledge flowing from laboratories and research institutes.

Even in the field of sensory research, and in the application of research results in the narrower field of blindness, deaf-blindness, and severe visual impairment, the growth of research activity during the last five years rivals that of the preceding 25; and we constantly seek new ways of dealing with the enormous extent and depth of our interests.

The increasing speed and sophistication of research places growing demands on us for current information and data here and now. Only a little less demanding is the need for written records of completed phases of work done so that hypotheses can be formulated and refined in retrospect. In general, it can be said that as contact between researchers becomes more and more face-to-face the need becomes progressively greater for detailed data on work currently under way.

Personal Visits Among Researchers

☐ Possibly the most effective exchange occurs when one researcher goes to another's laboratory to work or observe. The importance of direct visits lies in their economy of exchange of views and data regarding specific areas of interest for the visitor and his host. A potential danger inheres in this method only because it is essentially, and necessarily, a selfish exchange. Unless such visits become far more frequent, they do not promote the interests of large scale international efforts of cooperative undertaking, although they ease the flow of information toward that end.

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[*] Copies can be obtained for $1.50 each from the Publications Division, American Foundation for the Blind, 15 West 16th Street, New York, New York 10011

Reports at conferences

When the volume of work warrants it, the exchange of data at conferences organized around the content of researchers' interests may ease the burden of personal visits. This is especially so when a field of work has been defined through individual efforts and a resultant body of data has grown up; that work then requires examination vis-a-vis a related body of knowledge. This can be done every few years by means of a small specialized conference. Such conferences may include the practitioner (the worker for the blind) who can interact with researchers. Through their exchange, but within the context always of the scientific process, a dialogue is begun between researcher and practitioner in which the researcher might be able to reformulate the problems of the practitioner in a way meaningful to both of them. During this interaction the researcher learns to take into account the day-to-day realities which are forced upon the practitioner. The result of this dialogue, if it is successful, is the creation of a common core of meaning, a community of language, and a sharpening of thought regarding problems shared by them.

Such is the theory of the conference. What is surprising is how well it works out in practice. At both the 1964 Rotterdam conference on mobility research and the 1966 international conference on sensory devices for the blind sponsored by St. Dunstan's in London, we were struck by the degree to which this essential dialogue between researcher and practitioner seems to improve with practice. Some researchers have learned to function almost as well in the area of practice as they do in their own bailiwick.

The Researcher and the Practitioner

☐ Learning to participate in this dialogue is not easy, but it is both essential and rewarding. One cannot know the limitations and reservations a researcher may have about his product unless one sees it in its potential context of use. This is particularly easy to see in the case of technological products like mobility devices. At the same time it becomes obvious that one cannot dismiss an early prototype of a device because it does not solve all the mobility problems of all blind persons. It seems that the researcher's argument for a multiplicity of solutions to the problems of mobility has gained a wider and more sympathetic audience among practitioners, who appear now to welcome the prospect of, for example, a wide variety of mobility devices or reading machines, taking into account not only the needs, but also the personality of the potential user. The consequences of this dialogue can barely be imagined, for it is evident that as we learn more about the human being's capabilities to absorb information from instrumentation designed to overcome the impedance of the man-machine interface we shall arrive at still better and clearer ideas of what instrumentation is wanted and necessary.

The conference, therefore, fulfills a dual purpose. One, it provides a compact and economical vehicle for the direct interaction of researchers with one another, partly through the presentation of papers, more importantly through the many opportunities offered for personal contact in a stimulating cross-current of ideas. Two, it provides a formal context of rational exchange between two universes of discourse, that of the researcher and that of the practitioner, which might never otherwise be so comprehensively explored.

Written reports covering a span of time

A report of a bloc of activites, carried out over time, and written in the richness of context and experience gathered by a researcher has the disadvantage of addressing an audience who cannot respond directly, and the additional disadvantage that it must be out of date when it appears because of a publishing gap. This latter shortcoming is shared by all published materials, but an annual report may have the advantage of providing the reader with a description of the institutional and instrumental and staff setting within which a technical report becomes most meaningful. We are thinking here of reports such as the one that Dupress wrote on the multiple activities of the first year of full operation of the Center for Evaluation and Development of Sensory Aids at MIT, and of the series of remarkable annual reports of research undertaken by Nolan and his associates in the department of research of the American Printing House on questions concerning braille coding and braille learning.

Such reports are invaluable because they stress the continuities of research in institutional settings. As a record of work already done, they serve as an introduction to the primary assumptions and implied directions of a researcher, and indicate his shared points of view with colleagues.

Written reports covering specific technical data

We have just spoken of reports in which a series of conclusions may be brought forward to summarize a series of studies over time. Yet there is often a barely perceptible difference between these and reports which deal with a specific subject content. These, too, may summarize work done over a span of time, and of course they name and specify the place in which work was done, the sampling procedure, the data collection procedure, and the implications to be drawn from the data. Their primary purpose, however, is not to convey a description of how a group of researchers distributed their energies over time; rather their purpose is to transmit data. Long-term effects usually result in a report which summarizes data collected over a period of time by one or more research teams.

Step 5: Development, Training, and Evaluation

☐ A few words to the reader may be useful to explain our inclusion of development along with the additional factors of training in the use of prototype product and the evaluation of that product's effectiveness. Certainly the incorporation of training into this phase in an explicit sense represents a new awareness of its importance to researchers. Now that the importance of training in the use of a product before evaluation has become much clearer, we should also like to point out that training plays an equally important role in the adoption of techniques or ways of handling the products of research. Many scientists, technologists, and research technicians, to their dismay, have learned this too late.

To the present community of researchers, the importance of training before evaluation became obvious in the development of the Kay mobility aid made on a regular production line by Ultra Electronics, Ltd. in the U.K. A great deal has been said and written about this device; it has become

The Kay mobility aid

obvious that one cannot answer simply the question, "Is it good?" without asking in response, "Good for what?" It is known that the output of the device (the audible signal feed to the earpiece) is rich enough and complex enough that it can be utilized in a great many different ways; so many, in fact, that it was suggested at the 1966 St. Dunstan's conference that the Kay device be called an "environmental sensing device," rather than a mobility aid (the latter is presumably a more restricted class included in the former). Gissoni's paper in a recent journal article provides an illustration of what we intend by the term "complexity" to describe the output of the aid.

Testing

Investigation and training with this device have shown that to use the device with anything approaching a suitable level of competence as a mobility aid, one must have highly motivated students, of better than average intelligence, who are fairly yong and willing to undergo at least 100 hours of training. In addition, an important personality variable is involved: the user must have good tolerance for ambiguity. With so many factors affecting performance, it is easy to see why evaluation of any device such as the Kay aid becomes not only a difficult and demanding process, but one which unquestionably must be done by highly skilled investigators, under carefully controlled conditions, and with full awareness of the implications of the findings for further modifications. It may even be that we must revise the training schedule in the light of these new facts before an adequate evaluation can be made.

So far we have available two full scale evaluations of mobility aids, both done in the U.S.A. under the auspices of the Veterans Administration: one by Deatherage of TRACOR, Inc., Austin, Texas, of the Benham pulsed transmission obstacle detector; the other evaluation of the Kay aid by Riley and his co-workers at St. Paul's Rehabilitation Center, Newton Massachusetts. We find it interesting that both investigators found evidence indicating crucial personality variables as factors in success with an aid to navigation, factors foreshadowed by Mann's plea in 1962 for a wide variety of devices available to the handicapped which would allow selection of a prothesis by need and temperament of the user.

The Kay aid is also being evaluated at the National Physical Laboratories in England and at the Center for Sensory Aids Evaluation and Development in Cambridge, Massachusetts. With these, and the addition of a few isolated cases of evaluation of the Kay aid on a small scale (Tuurmaa in Helsinki), we come to the end of known efforts at properly controlled evaluation.

Evaluations Difficult, Time Consuming and Expensive

☐ Evaluations properly conducted under controlled and publicly specified conditions by competent investigators are hard to do, take time and money, and by no means guarantee a happy outcome. Yet in every industry and in every field of scientific activity they are an accepted part of the R & D process. We can expect no less of sensory aid research and development if we want to produce viable goods and techniques to overcome sensory deficits. We are at least at the stage where it is becoming more generally recognized that this is so. Two years ago we could not have said this much.

There is hope that this trend, if a trend is indeed indicated, will allow us to say more encouraging things about evaluation in the next few years.

Step 6: The Application of Practice

☐ To put into practice the findings of the process of research and development is, in theory, the easiest part of the research process. In actual fact it is often one of the most difficult. To be sure, the research process can provide answers to missing gaps in knowledge, and can evaluate the effectiveness of a device or technique. There are still many obstacles before this theoretical level of effectiveness can be realized in practice. No doubt there are many factors involved, but one seems to stand out above all others: the dearth of personnel who combine administrative skill with an understanding of the product, and an organization of their talents to put the product into use. And one other obstacle: the distrust (sometimes fear) of change that, even when a new and alternative solution to a problem is offered, cause those who first asked for change to be overly cautious and unsure of their ability to apply and utilize it. Practitioners often ask researchers for reassurance not innovation.

Successful examples

In a few rather striking instances, however, we can point to examples of successful application in practice of solutions to problems derived through the research process. In the area of devices, for example, some organizations have undertaken the difficult task of taking a prototype model, adapting it to a production model, then arranging for production, overseeing quality control procedures, distributing the product, and providing repair service in the field. The British tape talking book system, the insulin syringe the Dutch developed for blind diabetics, and the Typhlocane or Hoover cane the U.S. Veterans Administration developed for blinded veterans were introduced in this way. The organization and administration to carry this application out have gone further, perhaps, among the Dutch than any other people. Besides the priority listing of items desired for the impaired (mentioned in a previous section), one organization for the handicapped administers the entire R & D process as outlined here. It will be most interesting to watch its work as it tackles ever more complicated research products.

Psychosocial research findings

Psychosocial research findings have been applied to practice by influencing social policy and legislation. The comprehensive five-year study of the handicapped carried out by the Danish National Institute of Social Research, for example, was used to draft enabling legislation for programs of social welfare, the most comprehensive example of such application we have seen.

It should be stressed again that the responsibility for application to practice does not end with the provision of a product or service to the handicapped user. The essential nature of the research and development process includes many feedback loops to maintain a dynamic equilibrium. One of those loops links the experience of users in the field with the administration responsible for applying the product of research; another links users' experience with the evaluative stage of the process. In this way some account can be taken of the operation of factors in real life situations not adequately accounted for in the earlier stages. The Dutch organization attempts to include this function in its administrative set-up. Another and ingenious solution to part of this problem is afforded by the example of the British National Research Development Corporation (NRDC), set up under the Ministry of Technology of the United Kingdom. The NRDC, in effect, is responsible for awarding sums of money regarded as "risk capital" to support production and to evaluate production prototype of devices. Their deliberations before awards are thorough and of high professional caliber, and their interest follows the product through to the user. The organization was set up only a few years ago, and it will be interesting to see how this experiment in fully independent evaluation of research products carried through to the user will work out over the next several years.

An alternative

It would certainly be amiss not to point out also that long records of experience can serve as an alternative method of rational planning in carrying out application to practice. We have presented in the foregoing sections our view of the R & D process, its essential steps, how it can be honored in the observance and ignored and dishonored in the breach. Certainly, as a method, it appears to us superior to any other for generating knowledge which can then be systematically applied in the service of man. Its greatest value is in the conservation of the talents and energy of gifted people in applying themselves to the solution of some of the oldest scourges of humanity. But hardly less important are the serendipities in the new avenues of exploration open to us. The process we have described is not only self-correcting, but also self-regenerative, for no solution is final, and improvements and extensions always are possible.

Using Visually Handicapped Persons as Volunteers

Volunteers are a welcome and familiar sight at most agencies for the blind. But blind persons themselves serving as volunteers, particularly in other social welfare areas, is most unusual.

This past summer, the Sacramento (Calif.) Society for the Blind referred one of its members, a totally blind teenage girl, to the local Volunteer Bureau for assignment. It was an experiment that succeeded! The girl was assigned to a local day camp for disadvantaged children. She has indicated that she enjoyed it tremendously and is available for more assignments. And the Volunteer Bureau has indicated that they were as pleased with her as she was with the program.

The Education and Employment of Blind Mathematicians in Computer Centers in the Soviet Union

BORIS ZIMIN

Mr. Zimin is the president of the All-Russia Society for the Blind with headquarters in Moscow.

The All-Russia Society for the Blind pays great attention to the employment of blind persons. Blind citizens of our country are provided with state pensions which cover their needs. But work gives them great moral satisfaction because it is the way to active participation in the social and economic life of our society.

All blind persons in the Union of Soviet Socialist Republics who want to and are able to work take part in social labor thanks to the concern of the Soviet State for the handicapped.

In the Russian Federation, alone, 78,000 blind persons work. Among these are 5,000 blind intellectual workers. These people are teachers in secondary and higher schools, scientific workers at research institutes, lawyers, musicians, writers, administrators, and other professionals.

A new profession for the blind, mathematician-programmer, is of special interest. Each year it becomes more important. In these days of rapid developments in science, technology, and economics, every large plant, enterprise, and research institute needs electronic-computing techniques. The need for qualified staffs to service computing machinery grows constantly and has opened up a whole new avenue of employment for the blind.

The All-Russia Society for the Blind does not consider it expedient to arrange special courses for preparing blind persons who have already studied methods of transferring the problems already solved and algorythms to the conditioned machine code. As practice shows, a person with secondary education can master this profession at the special short-term courses.

Blind Persons Usually Work as Computer Engineers

☐ In the USSR, blind persons are employed in computing centers mainly as computer-engineers. People in this profession should have higher mathematical education, since they must be able to work out the proper mathematical system of equations in order to transfer these equations to algorythms, i.e. they must be able to translate the whole process of finding the solutions to the elementary steps that electronic-computing machines can easily perform. As a rule, subsequently, the same computer-engineers program their algorythms to machine code, i.e. they do the work of a programmer-technician.

Represented in several different fields

Blind programmer-engineers work in several different fields such as science, technology, industry, and agriculture. As an example, 14 blind persons work in the computing centers at Leningrad University; in Moscow, blind programmers work in the computing centers of the meteorological station, at the research institutes of agriculture, mechanization and automation, at the Steklev

This article has been adapted from a paper Mr. Zimin delivered at the European Regional Committee meeting of the World Council for the Welfare of the Blind held in London in July 1968.

Institute of Mathematics; at the Lebedev Institute of Physics; in the computing centers of different plants; at Ryasan radiotechnical institute; at Gorky University, and many others.

70,000 blind programmer-engineers in USSR

At present there are about 70,000 blind programmer-engineers. As I mentioned before, the number of blind persons working in computing centers grows every year.

Training

Those blind persons who have decided to become mathematicians usually enter mechanical-mathematics departments of universities or physical-mathematics faculties of pedagogical institutes. In the syllabus of instruction of these departments there is a programming course. Having got such professional training the blind person is able to cope with the work of a mathematician-programmer successfully.

Those blind persons who graduate from the higher schools begin work as young specialists. Responsible representatives of the All-Russia Society for the Blind take part in special commissions dealing with the distribution of young specialists and influence the employment of blind persons graduating from higher schools. In the Russian Federation alone, 579-600 blind persons are studying in higher schools and 100-120 of them graduate from these higher schools every year. Among them, 30 percent are mathematicians.

The wide availability of higher education for the blind in our country is conditioned by the fact that the application of the law about compulsory secondary education includes blind children. There are also evening schools where working blind boys and girls get their secondary education.

Blind Students Get State Scholarships

☐ The State provides blind students with a scholarship which is 50 percent larger than the scholarship for sighted students. After the first year of study, every blind student receives the state pension in addition to the scholarship. The All-Russia Society for the Blind has set favorable terms for the students for buying typewriters, tape-recorders, etc. The Society also provides the graduates with payments for a secretary-reader's services for one year after graduating so that the graduates can master their professions.

Financial conditions for blind students in the USSR and the special benefits with which they are provided, contribute to their successful attendance at higher institutions and to their success in their professions, including that of an engineer-programmer.

There is a Council of Blind Workers of Intellectual Labor at the Central Board of the All-Russia Society for the Blind. It generalizes the work experience of blind intellectuals and to some extent influences their choice of profession.

We have already accumulated much knowledge of the work of blind persons in the computer field in our country. Further study of the experience of employment of the blind in the field of computing technology and a wide exchange of opinions on this very interesting subject will contribute to the increase in the number of blind mathematicians in this new field.

Services for Deaf-Blind Persons in a Small Rural State

WILLIAM C. PATTON, ACSW

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Coordinating existing rehabilitation services in a small, rural state to meet the specialized needs of deaf-blind persons presents a real challenge. In New Hampshire, a coordinated program of services has been developed through cooperation between the State Vocational Rehabilitation Service for blind persons and the social service program of a private blind service agency.

New Hampshire is a small state (population 675,777) with few large urban areas. The three largest cities are Manchester (87,622), Nashua (45,277), and Concord (29,054). Rehabilitation facilities are relatively few in comparison with those in the more urbanized states, and there are no rehabilitation or testing facilities specifically for deaf-blind persons. The challenge was to locate or create necessary community services that could be coordinated for a meaningful rehabilitation program.

There are 1163 legally blind persons on the New Hampshire blind register and an estimated 1441 legally blind persons in the state. No authoritative figures concerning the exact number of deaf-blind persons in the state are available, but the author would estimate 20-25; this relatively small number, however, in no way diminishes the need for appropriate services.

Agencies providing service in state

There are two agencies in New Hampshire providing direct services for visually handicapped persons throughout the state: the Bureau of Blind Services,[1] the state agency, and the New Hampshire Association for the Blind,[2] a private agency. Two other state programs provide specific financial assistance: the Department of Public Welfare (Aid to Needy Blind) and the New Hampshire Sight Conservation Program.[3]

Although service to occasional deaf-blind clients has been provided for years, a coordinated rehabilitation approach has been developed during the last four years with consultation from the Anne Sullivan Macy Service of the Industrial Home for the Blind, Brooklyn, N. Y.

Training Sessions for Staff

☐ The New Hampshire Association for the Blind held a number of training sessions for staff covering the needs of deaf-blind persons with an emphasis on communication. A staff and board development paper relating the specialized needs of deaf-blind persons was prepared and distributed to local, regional, and national resources. Orientation of all subsequent new service staff will include the area of services to deaf-blind persons.

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[1] Bureau of Blind Services, Division of Welfare, N.H. Department of Health and Welfare; hereafter referred to as BBS.

[2] A private, non-profit agency providing state-wide services; hereafter referred to as NHAB.

[3] N.H. Division of Public Health, Department of Health and Welfare. The Sight Conservation Program assists in planning for certain types of eye treatment for those not receiving other forms of assistance.

Topics Included in Orientation

☐ The more pertinent topics in this orientation to services include: the five classifications of deaf-blind persons; a developmental history of services; a review of an Industrial Home for the Blind-Office of Vocational Rehabilitation study (1958) concerning basic needs of deaf-blind persons, interaction between clients and service staff, and recommendations; casework methodology in serving the deaf-blind client; a discussion of special needs of pre-school and school age deaf-blind children; considerable discussion of communication techniques; and an emphasis on the importance of appropriate vocational rehabilitation services.

Of the above topics, further comments on casework methodology and communication as related to community-oriented service may be helpful.

Necessity for accurate information about clients

It is often possible and certainly helpful to gather as much definitive information about the potential client as appropriate before intake or as early in the study process as indicated by professional planning. Since so much depends on the extent of loss of both senses, the necessity for currently accurate ophthalmological, otological, and general medical information is basic. Psychological information is also quite helpful, but generally must be obtained later through services qualified to test deaf-blind persons.

Once workers understand the visual and otological picture with medical and psychological involvements, and a satisfactory means of communication is found, the door to really meaningful services to and understanding of the psychosocial individual is open. The worker newly exposed to deaf-blind client must be particularly aware of self-attitudes and critically examine negative feelings with his supervisor.

Specialized knowledge necessary for workers with deaf-blind

Social casework with deaf-blind persons, as with blind persons, rests on a base of knowledge, attitudes, and skills common to social casework practice with any client group in any setting. Along with this common base, specialized knowledge of the nature and problems of deaf-blindness is necessary: communication techniques, awareness of helpful interviewing techniques, awareness of all available resources, awareness of the general problems of deaf-blindness, etc.

Clinical Conferences Desirable

☐ With the truly deaf-blind client, neither visual nor verbal rapport is possible and some physical contact is necessary. IHB has provided some very excellent guidelines in their pamphlet by that name. After the casework study process is completed (beginning relationship, communication, necessary sociological, medical, and specialized information secured, etc.), a clinical conference of as many of the workers involved as possible is desirable. The caseworker can present a summary of his findings and a psychosocial diagnostic impression, followed by formulation of a treatment plan with short-term and long-term goals as appropriate. Because of the severity of the problems of deaf-blindness and the resultant increased realistic dependencies, *we must not,* however, lose sight of a basic social work axiom: 'A person has the right to control his own life, enjoy personal and civil liberties, and pursue happiness and spiritual goals in his own way.'[4]

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[4] Wilson and Ryland, *Social Group Work Practice,* Houghton Mifflin, 1949, p. 16.

"In addition to specialized deaf-blind services, the worker must also consider other appropriate resources: vocational rehabilitation, limited mobility (important and generally possible), rehabilitation teaching, home crafts, financial assistance, special aids and appliances, recreation, already existing community groups, etc. It is obvious that the caseworker would have quite an active role in referrals for any of these resources. . .

. . . it is unnecessary for caseworkers of a general blind service agency to learn all methods of communication; however, it is important that they know the proper technique for the simple print on palm method and that they be aware of and prepared to learn whatever specific techniques may be realistically dictated by client needs."[5]

An Example of Service Provided

☐ An example of comprehensive service to a deaf-bind client illustrates the practical application of our coordinated approach. Mr. X was a self-referral to NHAB in 1964 for information about available services. He was 60 years old, recently widowed, partially sighted, totally and permanently deaf, and living alone with three dogs for companions. The client lived 65 miles from the service headquarters in a rural setting and in very poor socio-economic circumstances. He was safely mobile in his home and yard and to a nearby general store, but his existence was very substandard. Communication was almost nil and was accomplished by pencil written notes which he could not read. At the time he was still able to read lips.

Medical planning

The immediate problem was assistance in medical planning. The client was referred to and accepted by the New Hampshire Sight Conservation Program and regular opthalmological treatment for glaucoma was initiated in a nearby city. Deafness was evaluated at a university medical center and regular medical treatment for diabetes was begun with a local physician. The client was referred to a drug buying service which stretches his limited income from Social Security and a small industry pension. Although print-on-palm and the American One-Hand Manual Alphabet were demonstrated to him at that time, he preferred writing with a large black crayon pencil. The client had many paranoid tendencies, was very nervous, and terribly frustrated by his general situation. Regular, lengthy, and intensive casework visits to his home focused on assisting the client to assess his total situation, realistically handle his problems, and plan for the future.

Within a year the client, despite regular treatment, was legally blind and was forced to give up the clock repairing he had done for many years. He was referred to the home crafts department of NHAB, participated productively in a woodworking project until his work skills were restored, and was then referred to and accepted by BBS Vocational Rehabilitation Services for homebound work in an electronics project of their workshop program. The coordinated rehabilitation plan included vocational rehabilitation services, intensive casework, assistance in medical planning, transportation planning, emergency financial assistance, optical aids, and business planning.

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[5] Patton, William, "Services for Deaf-Blind Persons in New Hampshire," a staff and board development paper, August, 1966.

The client was presented for discussion informally at the Anne Sullivan Macy Service in January, 1967, subsequently referred there by Vocational Rehabilitation, and entered later that year.

Attended Anne Sullivan Macy Service

Although the client had been receiving regular services in New Hampshire for three years and had made considerable progress, some center services, especially maximum low vision aid and basic hygiene, were still necessary.

After a slow start, the client's experience at the Anne Sullivan Macy Service was quite successful. His rehabilitation for a useful life, including employment and a realistic new living situation, progressed well. A deaf-blind man who would certainly have ended up vegetating in a nursing home was rehabilitated within his individual potential.

Although comprehensive services on the local, state, and national levels were provided for Mr. X., the needs of other deaf-blind clients in our state, many of whom are elderly, can be met within the state through vocational rehabilitation services, social casework, evaluations at local clinics and rehabilitation centers, instruction in communication, referrals for mobility and/or home crafts, etc. The major gap in our current community-oriented planning is in the area of techniques of daily living and it is anticipated that this need will soon be met.

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A New Approach to Adjustment Training for Blinded Individuals

BERIT YANK

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Ogala, the Sioux word meaning "scattered," hardly describes the three week adjustment training course held by the State of Nebraska, Services for the Visually Handicapped in Ogallala, Nebraska, in June 1967. In fact one might say that instead of scattered, the efforts and activities were very much concentrated.

Plans for a short-term compensatory skills course for blind persons were drawn to meet several needs in services to blind people in the state of Nebraska. The vast distances between blind clients in the western part of the state made home teaching services difficult to render. On one hand, the long, involved process of sending a home teacher to an area with poor transportation facilities and heavy case loads did not permit thorough training of newly blinded persons. On the other hand, blind persons often hesitate to leave home for training programs even though they have a desire to learn the skills that will lead to independence.

Program's Goals

☐ During the planning, the staff established several goals for the program: to provide in a short-term training session, practical skills in daily living, orientation and mobility, communication skills, and homemaking; as a pilot program for the state, to create public information channels for services offered by the state to blinded adults; to provide better quality teaching through a solid block of learning, rather than a teaching session once a week or once a month. In addition, the agency could economize by bringing several clients together in one area. Having such a project in the rural part of the state would also prove to western Nebraskans that the agency feels they are just as important as those in the state's urban areas.

Clients in need of compensatory skills were chosen from the rehabilitation case loads. Of six candidates chosen, four females and one male began the program.

Program Participants

☐ The youngest was a 19-year-old, congenitally blind girl who needed orientation and mobility training and basic knowledge of everyday living. She entered not knowing what parts of the program except orientation and mobility training would apply to her. Although quite shy at the start, she was very interested in what was going on and soon began to ask questions. Her needs were different from those of the newly blinded people in the group. Her most outstanding progress was in mobility. Her basic knowledge also expanded in the areas of hair grooming, food preparation, poise in public, basic color harmonies, braille resources, and guiding devices.

Another client was a 36-year-old housewife and mother of two teenage children, who was newly blinded as the result of an assault. She entered the

Several clients also had emotional problems

program very depressed, fearful, disoriented, and self-depreciating. She was still suffering from severe physical and emotional shock. The client could not travel independently, even in her own home. Neighbors were cleaning her home and her family was cooking. The client expressed herself very readily but was unnecessarily self-critical, and used the assault to evoke sympathy. Early in the program she became eager to learn everything necessary for independence.

A 44-year-old farm wife with good object perception had greater emotional problems than visual. She entered the program with a reputation as an incessant talker. The staff was quite surprised to discover that she was very reserved and quiet. The client appeared to be in awe of the environment in which she found herself. She was quite hypochondriacal and kept herself very much apart from the group. However, she was neither uncooperative nor without humor. At first, she touched everything and emphasized her lack of vision, but as time passed it became apparent that she could see better than she would admit even to herself. Gradually, this pretense of visual difficulty began to drop away and the client began to perform on a level which her vision would permit.

The only male in the group was a 57-year-old former truck driver, blinded four years previously, whose greatest need was the acquisition of compensatory skills. The client came to the program after having spent at least four years at home doing almost nothing. He believed that he would never again participate in any of his former activities. At the beginning of the program this man was very quiet and would not respond unless asked to give an opinion or practice a skill. He could not relate the skills he was learning in class to those he might later use at home or in employment. At first, he was very clumsy and had very little stamina and a short interest span. He would give up easily on tasks that he could not accomplish immediately. But, as time went on, he displayed an amazing determination to perfect new skills.

Finally, there was a 67-year-old diabetic woman who accepted her blindness but needed help with home management techniques. Although the oldest client, this woman came into the group with the most definite goals. She said that she wished to gain self-confidence, learn to walk independently, and learn additional techniques which would help her in her home. She was very realistic, very aware of her own abilities and very much able to relate skills to herself. But, she was disoriented and fearful, as the mincing steps she used in walking made apparent. As the program progressed, the client worked diligently to learn the skills introduced, and with determination and tenacity she began to accomplish much.

Staffing

☐ The staff for the program consisted of a braille and typing instructor, two mobility instructors, and a personal management instructor with an assistant. All were permanent agency personnel except for the assistant to the personal management instructor and a mobility instructor from the Minneapolis Society for the Blind, who participated for one week.

Clients and staff lived together

Classes were held in a church basement consisting of a kitchen, a smaller room for typing and braille classes, and a large room for orientation training. During the three weeks of the program clients and staff lived together in a house so that skills could be reinforced without interruption. After the basic cooking skills were taught, clients prepared their own breakfasts in groups of two. Later, the clients prepared meals for the entire group. General cleaning techniques and organization of materials were first learned, then practiced in the same manner.

A very strong *esprit de corps* developed among clients and instructors in which much humor, interaction, and sharing of ideas and techniques occurred. The investment of time and effort by instructors was eventually well rewarded. The writer feels that such investment is necessary to encourage changes in clients attitudes. Learning skills alone does not answer the human need to feel adequate and gain independence. The mechanics of learning compensatory skills can only be enhanced by a sharing of interest, concern, communication, and experience by both staff and clients. Social interaction can break down the shell of uncertainty, fear, dependence, and frustration which most newly blinded persons have before adjustment.

Equipment used in program

Equipment purchased or brought for the program included household items; materials used in teaching the various skills; a minimum of furniture; and groceries. Clients were responsible for personal items and bed linens.

The first day of the program was spent in evaluating each client's compensatory skills. On the basis of this evaluation, subjects were directed to their specific needs.

This form of adjustment training was a highly concentrated session in basic skills—not a complete program. Because the program was so short, all the needs of all the clients could not be met. Clients with specific problems were given individual counseling.

Evaluations of clients

After a week of classes, the instructors evaluated each client as to goals, abilities, and performance. The subject material was then changed to fit the individual's needs. Some clients dropped braille because of poor touch, lack of motivation, or other reasons. One client dropped mobility because she could see more than she had admitted. Another dropped typing because she already had adequate typing skills.

Teaching Techniques

☐ Teaching techniques used basically were no different from those used in other compensatory skills programs. Some demonstrations were easier to perform because more equipment could be stored centrally than can be transported as it must be in the home teaching program. For example, eating poise was taught by using a complete table setting so that each student could practice graceful location and identification of items as well as methods of eating problem foods. Meat cutting was taught by using a folded paper plate to represent the "steak," which was actually salted and peppered. Salt sprinkled on cupboard surfaces was used as a device to indicate whether or not the client was overlapping strokes in dusting and cleaning. Many of these processes would be impossible to perform in the client's home.

The church was an excellent environment for teaching orientation and mobility. Steps, corridors, pillars, and various floor coverings provided tools for teaching sensory awareness. A large recreation hall was ideal for teaching direction and cane techniques.

The clients were interviewed at the end of the first week as to their ideas, comments, and needs. These interviews were taped and much valuable information was obtained.

What makes a program of this type unique? The skills taught are no different from those offered in most agencies or centers serving blind people. The clients chosen are those who would benefit most and who are somewhat motivated to learn, but are not special in any other way.

Why Was Program So Successful?

☐ This writer believes that the success of the program is due to: an atmosphere of gentle competition; sharing of knowledge and problems; formation of a close-knit group with a unity of purpose; generous use of symbols specific to the group—in short, group therapy without the highly technical frigidity of a "laboratory" or institution. The informality possible with a small number of people, a great deal of humor, and the stimulation of one student progressing to the next level provides for the others all help to move the program continually upward. The short duration also encourages each student to do his utmost each day and keeps personality problems which arise with an interchange among several persons at a minimum.

Human interaction

Perhaps the human interaction can be more clearly understood by specific illustrations. Despite the span of ages and differences in life-style of the clients, unity existed from the beginning. Private jokes such as the naming of an individual's cane became a great source of humor. These conversations provided a safe outlet for describing one's own mobility accomplishments. Often clients could be teased out of embarrassing situations, such as pouring coffee on top of an overturned cup, or polishing brown shoes with black polish, by the group.

Through living with them, the instructors were able to really know their clients. This was not just surface knowledge, but knowledge of the pressure tolerance, philosophies, and opinions of the client in an all day exchange with others.

Planned social events an integral part

Planned social events provided many valuable experiences that could not be taught in a class. Eating in public, a picnic, hiking, swinging, building sand castles, wading, playing ball in the gym, dancing, touring a museum, riding a tandem bicycle, and riding on a stagecoach, provided both recreation and, in some cases, entirely new experiences. By their own admission the students had not gone out much socially after losing their sight. One of the students reported a couple of months after the close of the program that she had resumed most of her previous social activities, even to giving a book review at a women's club meeting. Another client had never ridden a bicycle and was most enthusiastic about this new experience. These kinds of activities enable the blind person to express himself, encourage his daring, and help to build self-confidence.

Clients' reactions to program

At the end of the course, clients were interviewed about their reactions to and opinions about the program. The overall feelings were ones of enthusiasm, interest, and a desire for an additional week to reinforce the skills learned. The clients felt that they would continue studying such skills as braille and typing, and would practice the techniques of homemaking, daily living—and mobility skills which they had so far learned.

Some Problems Encountered

☐ Since this was the first "mobile" adjustment program of its kind in Nebraska there were problems. With the limited staff and time, every moment should have been used efficiently. However, there was not enough preplanning for schedules to proceed without interruption. Many times, activities were conducted by the ingenuity of the instructors rather than through preplanning. There was too little time for staff consultation and communication. Comparing of notes among instructors not only reinforces the learning process but also helps the staff to give more meaningful instruction. At least a half-hour consulting session a day would have improved this aspect of the program.

Because the program was initiated so quickly, there was not enough time to interview clients or train the assistant. This would be necessary in future programs, since little time is spent formally evaluating students during the program itself.

Inadequate staffing

Mobility is one of a blind person's most important skills. The blinded individual's ability to again move about comfortably is a great motivational factor in the rehabilitation process. As long as the program had two mobility instructors, the clients received adequate, progressive, intensive orientation and mobility lessons. The absence of one instructor caused a heavy strain on the other and weakened the overall potential of the course.

Although seemingly insignificant, there was a need for a volunteer or other staff member with a means of transportation to run errands and help transport clients. Food and other supplies had to be purchased by the personal management assistant who was really needed more for instruction. One car was the only means of transportation for three instructors and five clients.

While having the staff live with the clients was one of the program's greatest assets, it was a problem. Being responsible for clients 24 hours a day caused the staff much fatigue and pressure that might have been relieved by having substitute "houseparents" occasionally. The house used was not quite adequate for so many people and conditions were crowded. Relaxation without responsibility for the staff is of utmost importance in any program, but especially in an intensive one.

Positive Results

☐ Notwithstanding these problems, the results of the three-week effort were remarkable. There were noticeable changes in student attitudes as well as in skills. The truck driver, who had entered the program after an almost "vegetable-like existence," began to volunteer for group projects. He began to voice opinions and to show a sense of humor that had been dormant for some time. Above all, he began to express a desire for more training and to foresee the possibility of eventual employment.

The 19-year-old girl was thrilled with the new cane skills which would help her when she returned to college. She began making plans to continue mobility training so that she would eventually be able to move about the campus and even the town without sighted help. During the third week of the program she also began to concern herself with others. She could function within an accepting environment where her ideas and opinions could be expressed freely, and where questions about the every day world were never too "silly."

The woman who had lost her eyesight so tragically, was in the most desperate need of assistance. She not only had to develop sensory awareness but also had to accept the idea of being blind. This was especially difficult in the face of physical and mental shock. During the program, her use of tranquilizers or sleeping pills became less frequent and she finally discontinued them all together. At first, she used the story about her loss of vision as an emotional crutch but later rarely referred to it. She was completely disoriented when she arrived, but after learning some skills and having some counseling sessions, she began to explore on her own, to laugh easily, and to look objectively at herself instead of disparaging everything she did. A few positive signs that appeared were her resolution to dismiss a housekeeper who was performing all her household tasks, and a desire to complete her rehabilitation.

The 67-year-old diabetic housewife had learned most of the skills she needed except for mobility during the three weeks. She gained self-confidence and became less sensitive about her blindness. She was ready to return home to keep house with her husband who would soon retire from his job. Physical proof of her progress was her determined step in walking and a positive verbalization of future goals. The client stated that she had gained three positive values from the program: 1. Inspiration from the blind instructors who had themselves gained independence and a full life. 2. Self-confidence and the courage to try various types of activities. 3. The actual skills which would enable her to perform more easily the ordinary activities of life.

The client who had more emotional than sight problems became more realistic. Inadvertently, she began to use the vision she had rather than insisting that she could not see. She found recogntion of her visual abilities instead of her "handicap," and subjects such as braille and homemaking techniques gave her outlets for activity when she returned home.

Changes Which Would Be Made

☐ If the agency continues this new approach to rehabilitation, it will be more flexible in providing services to any part of the state without maintaining a complete facility or staff. In any area where several blind people are in need of training, a concentrated program can be established at a reasonable expense.

Does this kind of program fit client's needs?

Will a three week program of adjustment training fit the needs of rehabilitation clients? There are those professional rehabilitation workers who will say that a center for the teaching of adjustment skills is the only answer since a long-range program with permanent staff and facilities insures the maximum opportunity for adjustment to blindness. Home teachers might argue that the one-to-one basis of home teaching is the best way to rehabilitate blind individuals. The writer feels that each program has something to offer and that none are adequate alone. The State agency should have access to all three programs—three main sources which would adequately serve the training of blind individuals. Some graduates of a short term course may need additional time at a center, and certainly, all graduates will need follow-ups by a mobility expert and a home teacher.

The structure or vehicle used by a rehabilitation agency to provide services for blind persons is not the important factor. The results of efforts expended in behalf of a blinded individual are of paramount importance.

A Work-Study Program for Students In a Residential School for the Blind

EUGENE SPURRIER

Mr. Spurrier is assistant supervisor of Services for the Blind in the Division of Vocational Rehabilitation of the Maryland State Department of Education.

The work-study technique is one approach to helping youngsters find solutions to vocational problems. Most of us agree that some students would gain much by spending half their time in the classroom and the remaining time in actual on-the-job training.

In almost every school system, there are pupils whose ability to profit from the usual academic program is limited. Some of these students are retarded; others have emotional problems that interfere with learning. Others come from backgrounds where the value of formal education is not stressed. These young people encounter many problems when they reach the point where vocational decisions must be made. The situation is more complicated in cases where any or all of these factors appear in combination with a physical disability such as blindness. The disability not only makes its own negative contribution to the individual's ability to function, but further reduces his acceptability by the general public.

Candidates for Work-Study Programs

☐ Obviously, if several of these factors are present in the same individual, the resultant effect may be so devastating that little can be done to help him to achieve the skills, social competency, and motivation necessary for success in employment of any kind. There are also within this group many less severely affected youngsters who present problems in vocational choices that cannot be solved merely through the review of the academic record, the administration and interpretation of psychological tests, and the provision of appropriate occupational information. Such youngsters may have a poor level of academic achievement. Test data may indicate I.Q.'s from average to moderate retardation. Observation often reveals that the youngster has difficulty in relating to others and in behaving appropriately in social situations. It is here, where accurate assessment is so hard to make, that work-study programs seem to be most useful.

The Program at the Maryland School

☐ All of us in the fields of teaching and rehabilitation of the blind have been faced with the problems posed by the youngster in this category who is in his last year of school and has no idea as to what will happen to him at its conclusion. There are few clues as to the best direction in which to move, and the student is apprehensive and extremely unsure of himself. This kind of problem existing in a number of teen-aged children at the Maryland School for the Blind prompted us last year to organize our first work-study program. We thought that a concrete means of determining how these youngsters relate to individuals outside the school setting was needed. We

This paper was adapted from a talk Mr. Spurrier gave at a regional meeting of the American Association of Workers for the Blind in Harrisburg, Pa. in November 1967.

needed to know what kind of work tasks they could do well. We wished to know what their attitudes toward work were, and how they would react to situations where they would have to deal with failure. We believed that work-study would provide an opportunity for these students to find out what it was like to do a day's work. It offered them a chance to get experience in several job areas, and to learn what employers expected of them both on the job and in contacts with fellow workers. It was also felt that such a program would provide a bridge from school to employment, which could be used by the students, teachers, and counselors in finding solutions to problems as they arose.

Description of first course

The program was a joint undertaking of the Maryland School for the Blind, the Division of Vocational Rehabilitation, and the Maryland Workshop for the Blind. It was designed to run for the last 12 weeks of the Spring school term, and to provide pupils with experience in power sewing machine operation, food service work, and warehouse shipping and receiving. Nine potentially terminal students, five totally blind and four partially sighted, participated in the project. Their ages ranged from 18 to 21; in learning ability, they ranged from moderately retarded to average intelligence. For 12 weeks the students alternated on a weekly basis between participation in on-the-job training, eight hours a day, five days a week, at the Maryland Workshop for the Blind, and attending regular classes at the school. In addition to communication by phone, check lists prepared by the counselors, including a space for comments by the job training instructor, were sent at regular intervals to the counselors of the school and the Department of Vocational Rehabilitation. The check lists contained not only items pertinent to job training skills per se, but also those that would indicate personal and social living skills and adjustment, motivation, health habits, grooming, ability to give and receive assistance, to work with others, to accept constructive criticism, etc. Every week the students received assistance from counselors in those areas where help was needed.

Conclusions

☐ We think that this pilot program has been of considerable value to the nine students who participated. They appear to be less apprehensive about leaving school, and they certainly have a more realistic idea as to the kind of work they might be able to do, than would similar students who did not have the benefits of this project. Four of the pupils involved have gone on for advanced training in power sewing machine operation, and will eventually find employment at the workshop in this area. We feel that two of the participants may be able to function either as vending stand assistants or as warehousemen, if a setting can be found that does not involve too much visual inspection. Two students could not function in any of the three on-the-job training areas, and attempts are being made to work out other types of employment for them. One of the nine individuals, who did not prove to be interested in any of the three possibilities, returned to school.

I think this kind of program can be worthwhile for students with multiple problems, and we hope eventually to expand this concept of job training to areas outside the sheltered workshop.

A Work-Experience Program at the Montana School for the Deaf and Blind

PHILIP G. VEDOVATTI
CHARLES WRIGHT

Mr. Vedovatti is principal of the department for the visually impaired at the Montana School for the Deaf and Blind, Great Falls. Mr. Wright is an instructor in the same department.

The work-experience program conducted by the Department for the Visually Impaired has been in operation since the outset of the 1967-68 school term. Five non-college bound boys, aged 16-19, are currently enrolled. The purpose of the program is two-fold: to provide each student with a program geared to his academic, vocational, personal, and social needs; to afford each student in the program a proper introduction into the world.

The need for a program for those students not prepared for higher education cannot be overemphasized when one considers the education of a visually handicapped student. This person must gain skills to ensure him a means by which he can become self-sufficient. This problem can be approached through several channels. However, when one considers the opportunities available to a person in an educational setting such as in-school training academic work paralleling work experience, social growth, and other life-experience situations in a controlled setting we can see the possibility for a very strong building foundation for each individual.

Special classwork

Paralleling the on-the-job experience is the academic portion of the student's training. The student is placed on a level of functioning to meet his present abliities. The special class work includes subject matter that benefits a person who will be seeking skilled or semi-skilled work after leaving school. Specific areas of concentration are reading, mathematics, social skills for every day living, shop courses, and physical education.

The reading program emphasizes individual work on reading comprehension that will enable the student to interpret subject matter directed toward the world of work. In mathematics the student is introduced to related topics of everyday living,—banking, taxes, insurance, budgeting, etc. Social skills involve the student with today's world problems, national news, and local news media.

The industrial art classes are directed toward teaching skills in woodworking and electronics that will benefit them in future years. The physical education class includes all upper grades and has been planned to give each individual basic exercises essential in building good muscular coordination. Some of the activities offered to these students include bowling, swimming, wrestling, trampoline, and track.

Course work is integrated

The courses are not broken down as systematically as those in a regular high school; the course work is an integrated approach to learning those

This article is adapted from one that appeared in the April 1968 issue of *The Rocky Mountain Leader*, a publication of the Montana School for the Deaf and Blind.

basics that one will need to obtain and hold a job and to become a contributing member of society.

The Work-Experience Phase

☐ The work-experience phase of the program is a cooperative venture between the school and the Division of Blind Services. The former provides a full-time instructor who conducts academic classes and serves as liaison between the school and the employer. The instructor selects the placement, makes periodic observations of the student at work, and confers frequently with the employer. Since the instructor has daily contact with the students, he is able to check the student's progress and to discuss any problems he may encounter. The Division of Blind Services provides testing services, vocational guidance, and funds for transportation and tuition fees.

Work assigned according to student's interests and abilities

Each boy in the program is assigned work commensurate with his interests and abilities. Initially the student is required to perform chores in the school. When he develops the proper work attitudes and aptitudes, the student is placed in a carefully selected work situation in the community. Time spent at work varies from a minimum of one hour to a maximum of three hours per day. At present, two of the boys are placed in jobs in the community, one assists in the kitchen at the county hospital and the second serves as a locker room supervisor at the Y.M.C.A. A third will be placed shortly. The other two boys in the program are working at the school; one performs custodial chores, and the other operates the thermoform duplicator.

All persons involved with the program are most satisfied with the progress of the students to date, and current plans call for the expansion of the program as the need arises.

Our office supply of the January 1968 issue of The New Outlook for the Blind is almost exhausted. If you no longer need or want your copy of this issue, please return it to us. We will pay you 60¢ plus postage for each copy.

Educating the Blind in Kalimpong

BRIGADIER ANDREW S. MILLER

Brigadier Miller is director of The Salvation Army's National Information Service in New York City.

At Kalimpong, India, in the foothills of the Himalayas, 50 boys and girls are studying at The Salvation Army's Mary Scott Home and School for the Blind. Ironically, these blind students are often the only ones in their families to receive educations.

Children come from Sikkim and Nepal as well as from the local West Bengal region. Many have severe physical and social handicaps in addition to blindness. One eight-year-old Tibetan refugee boy had practically no teeth and was terribly thin. The doctor discovered he had tuberculosis. Now, his disease under control, he is doing well in his studies. An abandoned girl was brought to the school by a station master who saw her begging at the railroad station. Another girl was strapped to her mother's back while her mother worked as a coolie. By the time she was six, she was too big to be carried this way and there was no one to look after her while her mother worked. When brought to the school, she was extremely shy, but slowly gained confidence. Last year she came out top in her class.

The school was founded in 1940 by the Hon. Mary H. H. Scott, M.B.E. who first came to India in 1905 as an honorary worker for the Church of Scotland. When she retired in 1940, "Aunt Mary," as she was affectionately known, undertook the care of six blind boys at Kalimpong. During the next 12 years, 71 blind, crippled, and otherwise handicapped children benefited from her care. As "Aunt Mary" passed beyond the Biblical "three score and ten," she realized the necessity of finding someone to carry on her work and in 1953 she contacted The Salvation Army. Major Hazel Koerner took over the responsibility of administration in 1954 and continued in charge until 1958. Since 1958, Major Dorothy Page has been responsible for the home and the development of the school. Recently an eight-classroom building was constructed. There are also two modern hostels, one for boys and one for girls, which are filled to capacity. The old school building is used for crafts and music.

Three of the six teachers on the staff are blind graduates of the school. Two have completed teacher training and one has also completed a course at the Perkins Institute for the Blind in the United States on a Fulbright scholarship. Another former student and teacher, having obtained a B.A. and Dip. Ed., is in England taking a special course in teaching the blind. Two young men from the school are studying at an institute for the blind near Calcutta, one for a diploma in music and the other in light engineering.

Curriculum same as at local high school

The curriculum at the Mary Scott Home and School for the Blind is the same as in the local high school, so that children are able to transfer to regular schools for further education. The school prefers to have pupils enter at the age of five or six. The youngsters are placed in kindergarten, where they are taught braille and music and play games. Children who enter the school at an older age must work at a faster pace. Emphasis is placed on teaching braille and the braille arithmetic slates.

The School Day

☐ The school day starts early. At 6:30 a.m., there are morning prayers, followed by breakfast. After breakfast, the children make their beds, clean their rooms, and wash clothes. Older children do their own ironing.

At 9 a.m. school begins with a prayer. Classes end at 3:30 p.m. After classes, there is a tea break, followed by extracurricular activities. Music classes are very popular. Instruction is given in The Sitar, a traditional Indian stringed instrument, the guitar, and the accordion.

Boys participate in Scouting and girls in the Girl Guides. The boys take overnight hikes on rough mountain paths, carrying food and bedding. The girls have campfires and tea parties. Tea made at an open fire is a little smoky, but they like it that way.

To pass the child care requirements for the second class badge, each older girl is given a younger one to look after. She has to put the child to bed, bathe her, and supervise her at the table. This has worked out very well, although the Major observes that the younger children get a bit spoiled from so much attention!

India's multiplicity of languages complicates education here as elsewhere in the country. Four languages are taught: Nepali and Hindi, the two languages prevalent in the area; Bengali, the language used in Calcutta where some of the boys pursue their education, and English. Other subjects are history, geography, science, basic mathematics, algebra, and geometry. Because of the full academic program, cane and string work are the only crafts taught.

Since the best employment opportunities, for those who can qualify, are in teaching, emphasis is placed on doing well in classes. School fees are paid for those going on to the local high school and students can also study at a nearby college. For the musically talented there are opportunities to teach music after completion of a course in Calcutta. It is not always possible to obtain scholarships for promising students, however, and financing advanced education poses problems.

Current Literature

On Being Blind; An Ontological Approach to the Problem of Blindness, by Jacob van Weelden. The Netherlands Society for the Blind (Vondelstraat 128, Amsterdam-13, Holland), 1967. 114p. $2.50. A thought-provoking book analyzing the extent to which basic qualities of human existence and of human essence are influenced by blindness.

A Review of the Veterans Administration Blind Guidance Device Project, by J. Malvern Benjamin. *Bulletin of Prosthetics Research* (Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402), BPR 10-9, Spring 1968, p. 63-90. 75¢. History of the research project at Bionics Instruments, Inc. (Bala-Cynwyd, Pennsylvania) with a description of the current development of the Bionic C4 Laser Cane.

Short Term Field Evaluation of Type 8A9 Ultrasonic Aid for the Blind, by Robert R. McClung. *Bulletin of Prosthetics Research* (see address above), BPR 10-9, Spring 1968, p. 91-98. The author, totally blinded in 1966 as the result of an automobile accident, gives a personal evaluation of the Kay ultrasonic mobility aid.

The Visotoner: A Personal Reading Machine for the Blind, by Harvey L. Lauer. *Bulletin of Prosthetics Research* (see address above), BPR 10-9, Spring 1968, p. 99-103. Report of the author's experience in using and teaching others to use the Visotoner optophone developed by Mauch Laboratories, Inc. (Dayton, Ohio).

Research on Reading Aids for the Blind—A Dilemma, by Patrick W. Nye. *Medical & Biological Engineering* (Pergamon Press, 44-01- 21st Street, Long Island City, New York 11101), Vol. 6, 1968, p. 43-51. The "dilemma" of the title is that facing organizations for the blind who, with limited finances, must weigh the high cost of research toward more desirable print recognition machines with speech output against some less expensive, less efficient compromise devices which might be available sooner. The author describes research at St. Dunstan's in London on the development of one particular reading aid.

Give Us Education, by G. Jayaraman. *Blind Welfare* (The National Association for the Blind, Jehangir Wadia Building, 51, Mahatma Gandhi Road, Bombay-1, India), Vol. 11, No. 1, April 1968, p. 13-14, 18-20. Mr. Jayaraman, despite the dual handicap of total blindness and an amputated leg, has an M.A. from Madras University and a Diploma in Teaching the Blind from the Perkins School for the Blind. He discusses present day educational difficulties in India and advocates a special Day School plan.

The Concept of Rehabilitation—The Blind, by H. J. M. Desai. *Blind Welfare* (see address above), Vol. 11, No. 1, April 1968, p. 2-4. An extract from a paper presented at the National Seminar on Rehabilitation held in Trivandrum, India.

Characteristics of Visually Impaired Persons; United States, July 1963-June 1964. Washington, D. C., U. S. Health, Education, and Welfare Department. Public Health Service Publicaiton No. 1000, Series 10, Number 46. August 1968. 76p. (Available from Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 2042 @ 50¢ per copy.) The subtitle of this Vital and Health Statistics selection from data of the National Health Survey is: "Statistics on vision impairments for persons 6 years and older by degree of impairment, activity limitation, receipt of aid, restriction of social activities, employment status, sex, age, education, and income. Based on data collected in household interviews during the period July 1963-June 1964."

Laboratory Methods in Physics for the Blind, by David Ray Henderson. University of Pittsburgh, Master's thesis, 1965. 77p. (Available from ERIC Document Reproduction Service, The National Cash Register Company, 4926 Fairmont Avenue, Bethesda, Maryland 20014. Order Number - ED 011 155, hard copy @ $3.08, microfilm @ 18¢.) The paper describes auditory and tactile adaptation of physics laboratory apparatus for use by blind students, together with five methods of drawing raised line and indented diagrams for use in physics experiments. A survey of physics laboratory methods in schools for the blind in the United States and seven foreign countries, and two simple physics experiments for blind high school students are included.

M. M. R.

News in Brief

■ An experimental prototype closed circuit TV system for the visually handicapped has been developed by The Rand Corporation, Santa Monica, California.

This prototype system uses a TV monitor resting on a shelf, a TV camera with an electrically operated servomechanism for moving it about, and a working surface to support reading and writing materials. The total cost of the components (commercially available units) is less than $1000.

The system is thought to be of potential value to any visually handicapped person who has difficulty reading and writing even with the aid of glasses, but who could carry on these operations if he had the use of a visual aid that increased magnification, brightness, or contrast, or some combination of these.

■ A reading machine that feeds braille characters under a blind person's fingers from recordings on tape has recently been patented. The machine was invented for the Potter Instrument Co., Inc., Plainview, N.Y., by Ivan O. Fieldgate, a staff scientist.

The new machine could make available to blind persons a vast amount of written material now denied them because of the space required for publications in braille. On tape, the texts of books and magazines could be offered in very compact form.

The Potter Co. is not producing the reading machine, but is willing to license other manufacturers.

■ Father Thomas J. Carroll, director of the Catholic Guild for All the Blind, Boston, recently received an honorary membership award from the Association for Research in Opthalmology.

■ *TEACHING Exceptional Children*, a new magazine containing practical information that a teacher may use in his day to day work with exceptional children, began publication in November. The new journal, which will appear quarterly, is a joint product of the CEC ERIC Clearinghouse and the Special Educational Instructional Materials Center Network.

TEACHING Exceptional Children is published by the Council for Exceptional Children. Subscription rates are $5 per year (four issues).

■ Three new members have been appointed to four-year terms on the National Institute of Neurological Diseases and Blindness Advisory Council.

They are Mrs. Homer Thornberry; Dr. Joseph H. Ogura, head, Department of Otolaryngology, Washington University School of Medicine, St. Louis, Mo.; and Dr. Augustus S. Rose, Professor of Medicine, University of California at Los Angeles.

■ January 15, 1969 is the deadline for nominations for the 1969 Francis Joseph Campbell Award. The Campbell Award is presented annually by the American Library Association's Round Table on Library Service to the Blind "to a person who has made an outstanding contribution to the advancement of library service to blind persons."

All interested persons may make nominations which should be submitted to Robert S. Bray, chairman, Campbell Award Jury, c/o Division for the Blind and Visually Handicapped, Library of Congress, Washington, D.C. 20542

■ Dr. Edward Clifton Merrill, Jr. has been elected president of Gallaudet College for the Deaf, Washington, D.C. He will succeed Dr. Leonard M. Elstad who will retire on June 30, 1969.

Dr. Merrill has been dean of the College of Education at the University of Tennessee since 1961.

■ Mrs. Florence Henderson, a prominent educator of blind children for many years, died in Santa Cruz, California September 6.

Mrs. Henderson was for many years a professor in the program for the visually impaired at San Francisco State College. She was also the author of numerous books and articles on blind children.

■ Paul A. Fayda of Milwaukee, a prime mover of the establishment, operation, and growth of Industries for the Blind in his home city, received the R.B. Irwin Award at the 1968 annual meeting of National Industries for the Blind held in Seattle in October.

The R.B. Irwin Award, which was established by NIB in 1953, pays tribute to Dr. Robert B. Irwin who was largely responsible for enactment of the Wagner O'Day Act. The Irwin Award is presented only when there is a suitable recipient.

■ A group of scientists at Baylor University School of Medicine have concluded that rubella (German measles) may be even more dangerous than had previously been thought.

Using simplified rubella detection tests, the Baylor scientists studied a series of 13 cases in which multiple blood tests showed the pregnant women to be infected with the rubella virus. Twelve of the babies proved to be infected as well.

Previous studies had shown that the fetus is infected in 43 to 64 percent of cases in which the mother had rubella during pregnancy. The Baylor study indicates that these estimates may be low.

■ A high school drop-out whose drinking escapades led to a brush with the police which accidentally resulted in his being blinded is the first recipient of National Industries for the Blind's Peter J. Salmon Award, established to honor the "Blind Worker of the Year."

The winner, 28-year-old Karl Randall of Minnetonka, Minn., is employed in the workshop of the Minneapolis Society for the Blind.

Mr. Randall received the award from Dr. Salmon, a pioneer in the field of workshops for the blind, at NIB's annual meeting which was held in Seattle in October.

Coming Events

November 1-5 American Academy of Ophthalmology and Otolaryngology, Annual Meeting, Chicago, Ill.

November 11-15 American Public Health Association, Annual Meeting, Detroit, Mich.

November 13-17 Council of Jewish Federation and Welfare Funds, Annual Meeting, Atlanta, Ga.

November 18-22 The National Association for Mental Health, Annual Meeting, Boston, Mass.

November 20-22 National Society for the Prevention of Blindness, Annual Meeting, New York, N.Y.

December 5-6 National Social Welfare Assembly, New York, N.Y.

January 21-23 Council on Social Work Education, Philadelphia, Pa.

March National Conference on the Aging, Annual Conference and Business Meeting, New York, N.Y.

March 9-12 National Health Council, National Health Forum, New York, N.Y.

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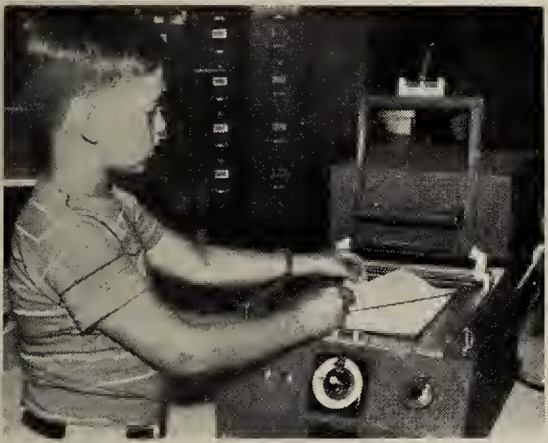

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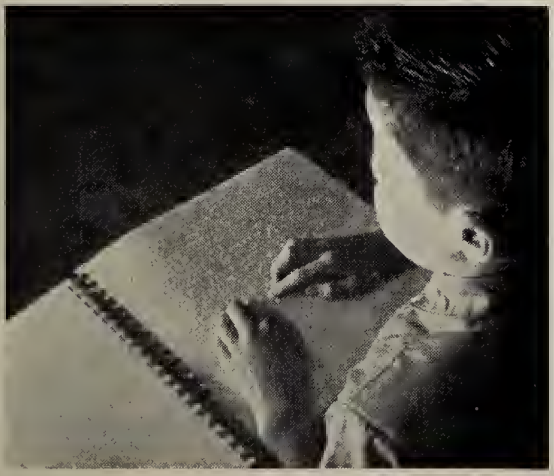

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